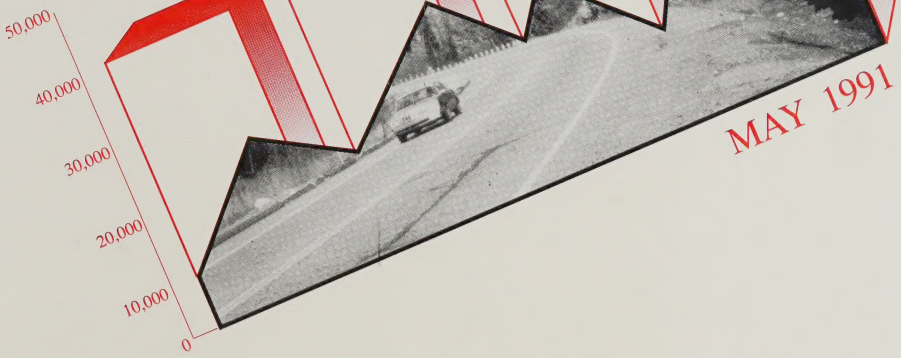
Ministry of Transportation
Ontario

PROVINCIAL HIGHWAYS PROGRAM

TRENDS OVERVIEW



MAY 1991

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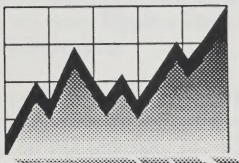

MAY 1991

HIGHWAY PROGRAM ANALYSIS OFFICE 235-4108

INTRODUCTION

To manage effectively in an 'information age' management requires ready access to historical data. Recognizing this, we have attempted in the *Trends Overview* to pull together diversified and pertinent information about the Provincial Highways Program, as well as, useful information that is directly related to it. Information is presented as a five year trend and is shown in graphic form along with the actual figures and brief descriptive highlights.

Each year, as we gather data for the *Trends Overview,* we attempt to refine the process so that we can ensure greater accuracy and consistency. The most significant change this year is in safety information. All safety data now comes from a single source, the Safety Coordination & Development Office. A new indicator showing the severity of injuries sustained in accidents has been included this year to provide a broader perspective of accidents occurring on our highways. Unfortunately, it was not possible to calculate a new accident rate as new figures for million vehicle kilometres of travel in Ontario were not available at the time of publication.

In response to requests for more detailed economic information, we have made a number of changes in the section entitled 'Support to Economy'. We have developed new indicators showing the Gross Provincial Product from Capital Contracts, as well as, MTO salaries for Capital Contracts. Wherever possible, we have provided separate figures for Northern Ontario and for Southern Ontario. All economic calculations are now based on the value of Capital Contracts provided by the Program Administration Office.

Regrettably, a few indicators requiring or related to traffic data have not been updated as new traffic figures were not available at the time of publication. These graphs are clearly identified. Also, your attention should be drawn to a change in the Human Resource section. Costs or estimated costs for staff training have always been difficult to obtain and verify. For this publication, actual figures for 1990-91 contained in the Budgetary Planning and Control Office Database were provided by the Operations Management System Group. These figures will hopefully be available in subsequent years and will enable us to plot trends in the future.

Once again, we are extremely grateful to everyone who provided information and contributed to the creation of this document. We hope that, as in the past, it will prove useful to Program staff in their planning process. We welcome comments from the users and would encourage anyone who is aware of useful information that could be included in the *Trends Overview* to contact our office.

Michael J. Cook
Manager
Highway Program Analysis Office

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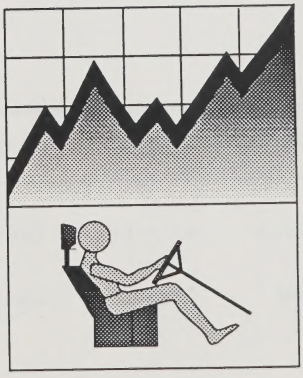


• Ontario Driver Population

Highlights

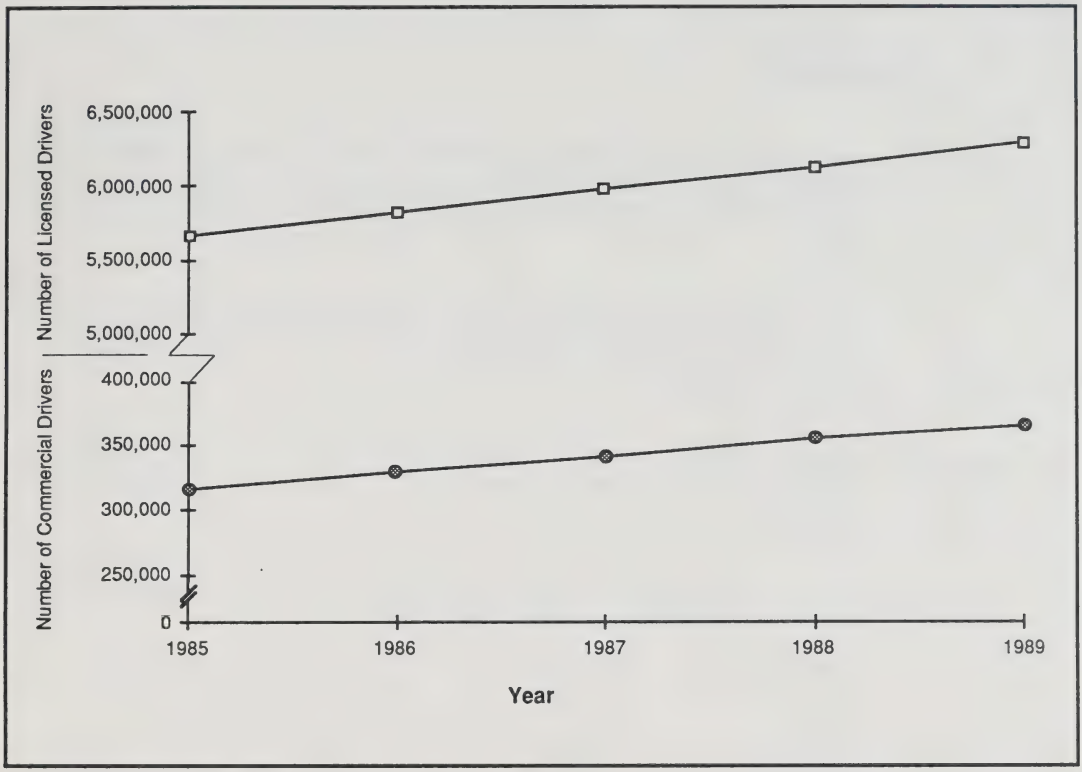
- The number of licensed drivers has been increasing steadily over the years. An overall increase of 11% was experienced from 1985 through 1989.

- The Commercial driver population grew by 15% between 1985 and 1989, a slightly faster rate than the total licensed driver population.

- The proportion of commercial drivers among total licensed drivers has remained fairly constant over the past five years. In 1989 commercial drivers constituted 5.8% of the total licensed drivers.

USAGE

• Ontario Driver Population



LEGEND: □ Licensed Drivers
⊗ Licensed Commercial Drivers

Type of Drivers	1985	1986	1987	1988	1989
Total Licensed Drivers	5,660,419	5,817,799	5,978,105	6,118,112	6,290,423
Commercial Drivers	316,626	329,268	341,025	355,013	365,090

SOURCE: Licensing and Control Branch - Licensing Administration Office

• Driver Population by Age

Highlights

- Not all age groups of drivers increased over the five year period from 1985 to 1989. Drivers comprising the youngest age group (ie. 16 - 24 yrs) actually declined slightly by 26,796 drivers (or 2.7%) over the five years.

- The most pronounced increase occurred in the group of drivers 65 years and older where there was an increase of 115,757 drivers (or 22.1%) from 1985 to 1989.

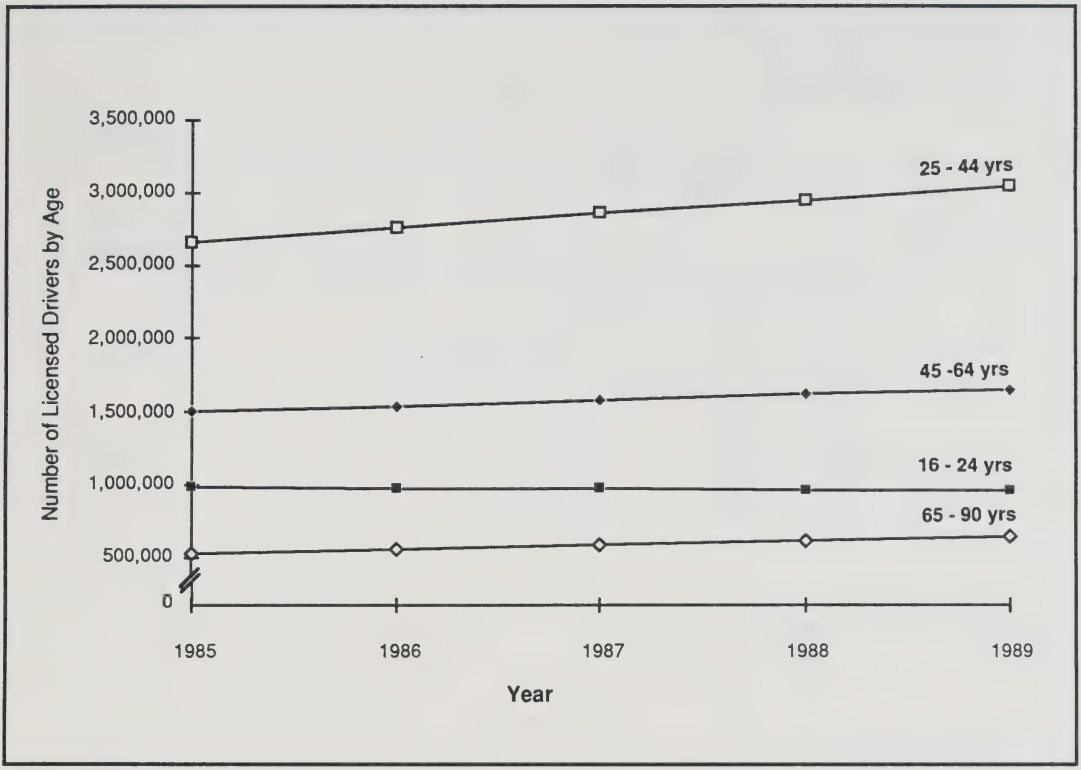
- Drivers aged 25 - 44 years increased by 394,299 (or 14.9%) and drivers aged 45-64 years increased by 146,745 (or 9.7%) over the same period.

- Following is a comparison of the four age groups as a percentage of the total driver population for 1985 and 1989:

AGE GROUP	1985	1989
16 - 24 yrs	17%	15%
25 - 44 yrs	47%	48%
45 - 64 yrs	27%	27%
65 & over	9%	10%

USAGE

• Driver Population by Age



Drivers by Age	1985	1986	1987	1988	1989
16 - 24 years	981,375	971,390	968,243	954,455	954,579
25 - 44 years	2,648,941	2,752,382	2,851,779	2,942,357	3,043,240
45 - 64 years	1,506,034	1,537,576	1,574,887	1,612,369	1,652,779
65 - 90 years and over	524,069	556,451	583,196	608,931	639,826

SOURCE: Licensing and Control Branch - Licensing Administration Office

• Total Vehicle Registrations

Highlights

- The number of 'Active Fit' vehicle registrations continued to increase, reaching a total of 6 million in 1989.

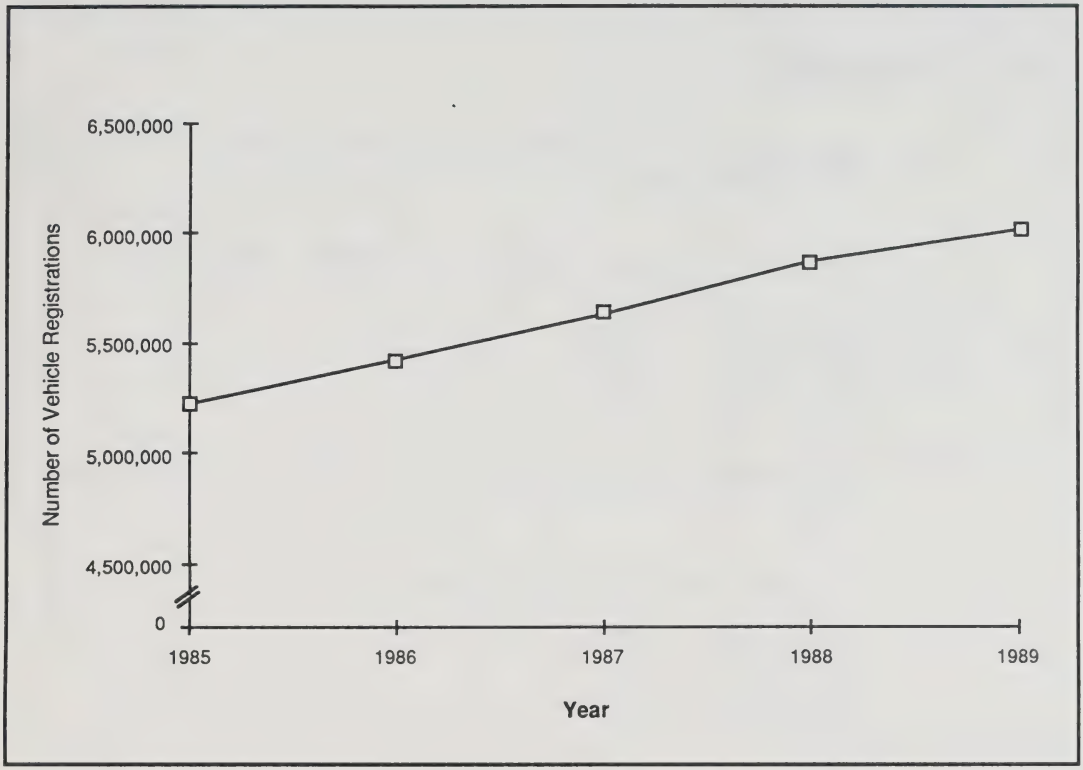
- The total number of vehicle registrations grew by 15.2% over the past five years from 1985 to 1989.

- The annual rate of growth was as follows:

1985 - 1986	3.8%
1986 - 1987	4%
1987 - 1988	4.2%
1988 - 1989	2.5%

USAGE

• Total Vehicle Registrations



NOTE: Figures are for "active fit" vehicles only

	1985	1986	1987	1988	1989
Vehicles Registered	5,223,463	5,421,220	5,634,965	5,872,739	6,018,063

SOURCE: Licensing and Control Branch - Licensing Administration Office

• Commercial Vehicle & Bus Registrations

Highlights

- Registrations for commercial vehicles have increased by 19.6% from 1985 through 1989.

- The annual rate of growth for commercial vehicles was as follows:

1985 - 1986	4.7%
1986 - 1987	5.5%
1987 - 1988	6.1%
1988 - 1989	2.1%

- Bus registrations increased by 15.6% over the past five years (1985 to 1989).

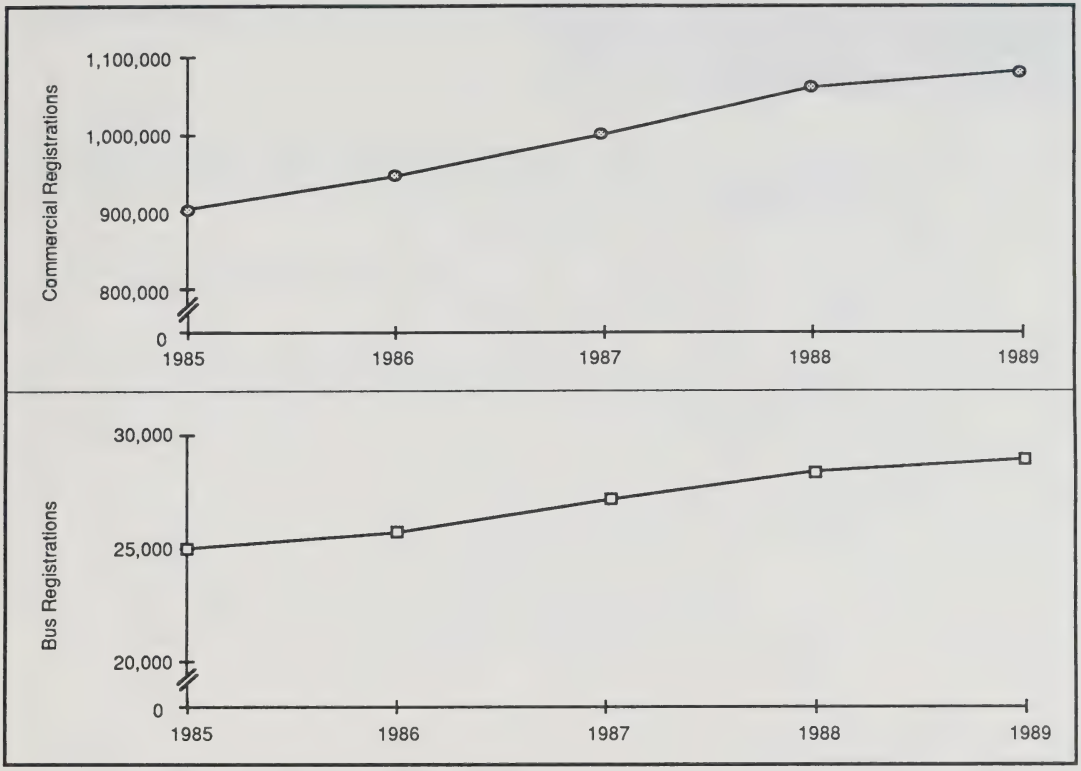
- The annual rate of growth for buses was as follows:

1985 - 1986	2.7%
1986 - 1987	5.6%
1987 - 1988	4.5%
1988 - 1989	2%

- Throughout the five year period from 1985 to 1989, buses comprised 0.5% of the total vehicle registrations while commercial vehicles increased very slightly from 17.3% of the total vehicle registrations in 1985 to 18% in 1989.

USAGE

• Commercial Vehicle & Bus Registrations



NOTE: Figures are for "active fit" vehicles only

Registered Type of Vehicle	1985	1986	1987	1988	1989
Commercial	904,111	946,145	998,473	1,059,092	1,081,659
Bus	24,999	25,661	27,110	28,341	28,909

SOURCE: Licensing and Control Branch - Licensing Administration Office

• Annual Travel Experience For Ontario

Highlights

- The growth of travel on Freeways maintained its upward trend since surpassing travel on Other King's Highways in 1984, with an increase of 7.8% between 1987 and 1988.

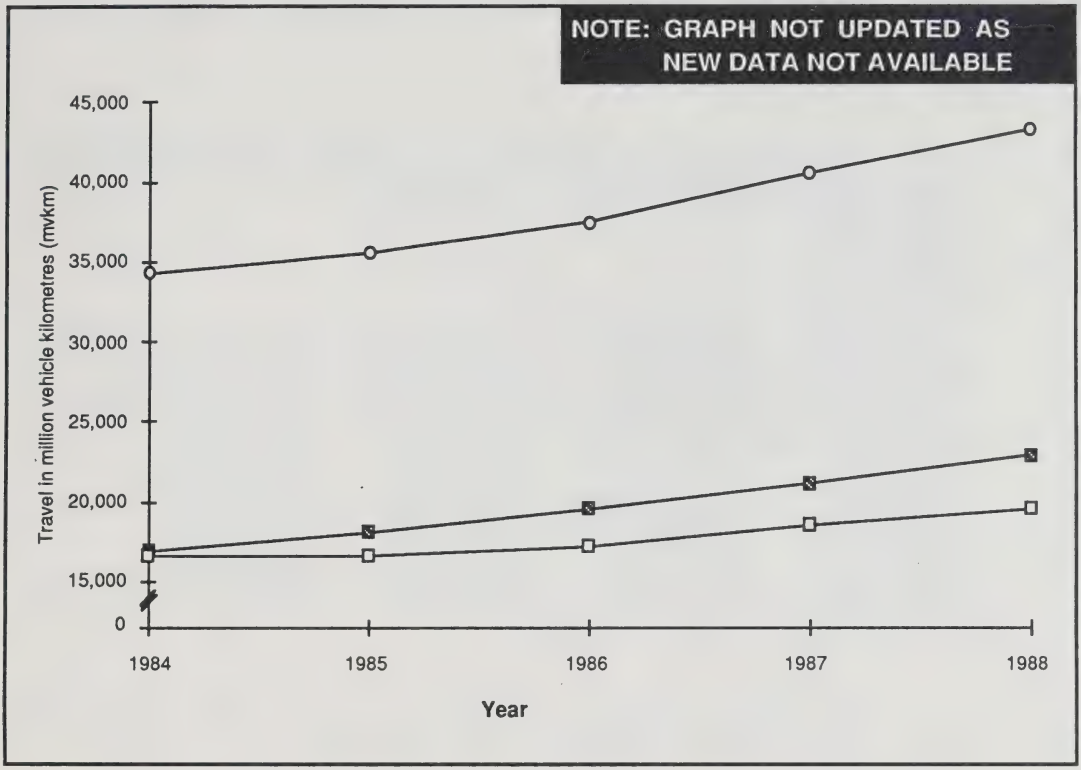
- Since 1984, Freeway travel increased by a remarkable 35.2%.

- Overall, travel on the provincial highways continued its upward trend. During the past five years (1984 to 1988), an increase of 26.2% was experienced.

NOTE:
INFORMATION NOT UPDATED AS
NEW DATA NOT AVAILABLE

USAGE

• Annual Travel Experience For Ontario



LEGEND:
- ▧ Freeways
- □ Other King's Hwys
- o All Highways *(NOTE: This total includes Secondary and Tertiary roads)*

Type of Road	1984	1985	1986	1987	1988
Freeways	16,899	18,075	19,532	21,189	22,841
Other King's Hwys	16,574	16,646	17,172	18,546	19,575
All Hwys	34,291	35,532	37,517	40,571	43,283

SOURCE: Transportation Capital Branch - Highway Planning Office

• Measure of Congestion

Highlights

- The data represents the Volume over Capacity ratio for a Permanent Counting station located on Highway 401. This section is a good indicator of traffic flowing into the Greater Toronto Area.

- Definition of Volume over Capacity ratio:

  This is a ratio of actual traffic volume divided by the capacity of a given facility. Volume is the actual or demand volume for a facility and capacity is the theoretical or calculated volume of what that same facility can physically handle in one hour. Both of these figures are expressed in passenger cars per hour.

  The traffic volume used is the Design Hour Volume, which in this case, is the 30th highest hourly volume measured at this location.

  The Minimum Tolerable, according to the Quantity Standards, is Level of Service 'D'. The Capacity Volume used is the Service Volume for the maximum at Level of Service 'E'.

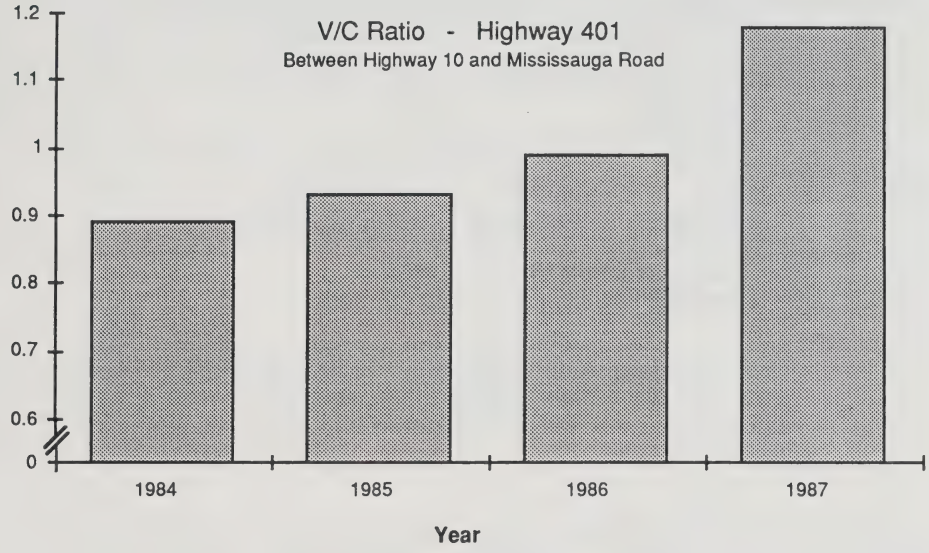
  A V/C ratio of less than 1 indicates that the demand is less than capacity, ie. traffic is still flowing. A V/C ratio of greater than 1 indicates that demand exceeds capacity, ie. traffic is congested.

NOTE:
INFORMATION NOT UPDATED AS NEW DATA NOT AVAILABLE

USAGE

• Measure of Congestion

NOTE: GRAPH NOT UPDATED AS NEW DATA NOT AVAILABLE



	1984	1985	1986	1987
V/C Ratio - Hwy 401 (Between Hwy 10 & Mississauga Road)	0.89	0.93	0.99	1.18

SOURCE: Transportation Capital Branch - Highway Planning Office

• Cost of Owning and Operating an Automobile

Highlights

- The cost of owning and operating an automobile is based on the following:

  Variable Costs (operating)
  - Gas and Oil
  - Maintenance
  - Repairs
  - Tires

  Fixed Costs (ownership)
  - Insurance
  - LIcence, Registration Fees and Taxes
  - Depreciation

- The Canadian Automobile Association provides both a 'low cost province' and a 'high cost province' figure for owning and operating an automobile. For the Trends document we have used the 'high cost province' figure.

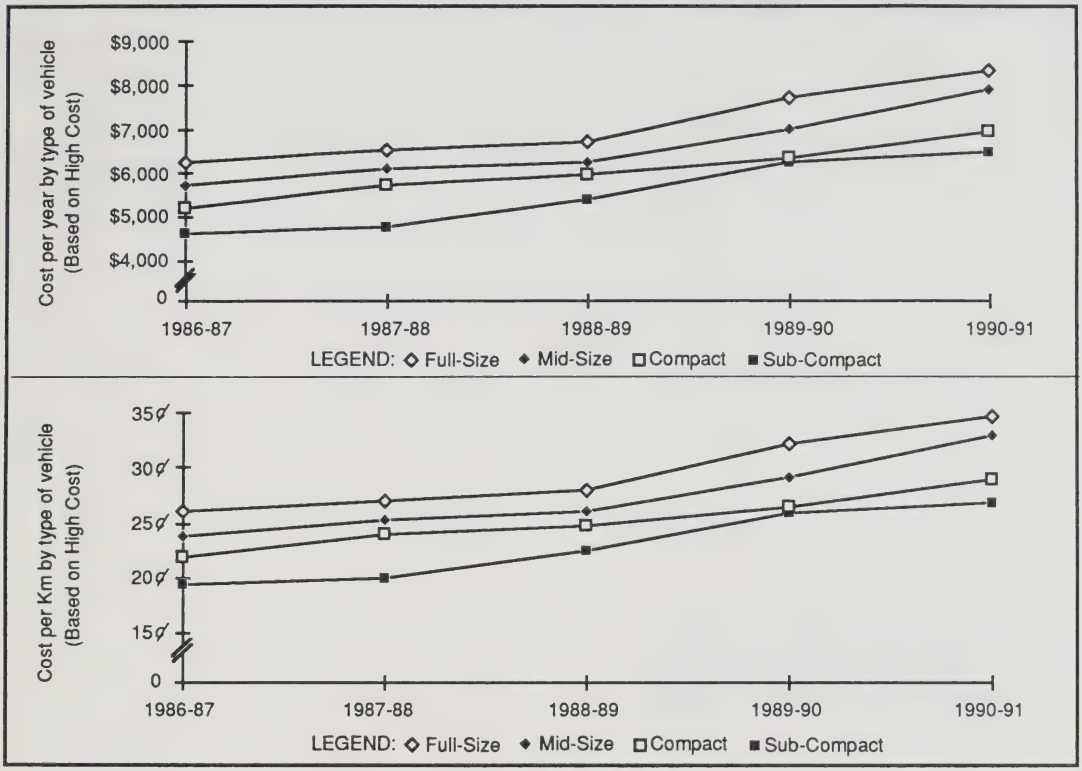
- The cost of owning and operating an automobile increased over the 5 year period from 1986-87 to 1990-91. What is perhaps worth noting is that according to the Canadian Automobile Association's data, the largest increase occurred for subcompacts.

  Percentage of increase from 1986-87 to 1990-91:

Sub-Compact	39.6%
Compact	33.6%
Mid-Size	38.7%
Full-Size	33.6%

USAGE

• Cost of Owning and Operating an Automobile

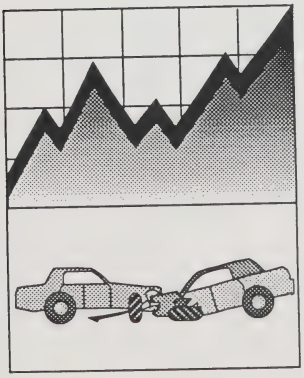


NOTE: Data presented is 'High Cost Province' based on 24,000 km driven annually. Figures are in 'Current Dollars'.

Cost on Per Year Basis	1986-87	1987-88	1988-89	1989-90	1990-91
Sub-Compact	$4,628	$4,774	$5,380	$6,225	$6,463
Compact	$5,210	$5,736	$5,940	$6,347	$6,960
Mid-Size	$5,696	$6,075	$6,255	$6,995	$7,898
Full-Size	$6,233	$6,509	$6,713	$7,711	$8,327
Cost on Per Km Basis					
Sub-Compact	19.3¢	19.9¢	22.4¢	25.9¢	26.9¢
Compact	21.8¢	23.9¢	24.7¢	26.4¢	29.0¢
Mid-Size	23.7¢	25.3¢	26.1¢	29.1¢	32.9¢
Full-Size	26.0¢	27.1¢	28.0¢	32.1¢	34.7¢

SOURCE: Canadian Automobile Association: Car Costs Brochure 1986/87 - 1990/91

Safety



• Trend in Accidents on Ontario Highways

Highlights

- **PLEASE NOTE: A new source is supplying this data.**
  The figures for this graph are now being provided by the Safety Coordination & Development Office. The reason for this change is so that there will be one consistent source for all safety indicators used in this document. The figures differ from those recorded in previous years and are higher because they now include those accidents which occurred on ramps and interchanges.

- The pattern for accidents on all types of roads was the same; there was a decrease in accidents from 1985 to 1986, followed by an increase for each of the next three years (1987, 1988, 1989).

- Accidents over the five year period 1985 to 1989 increased as follows:

  Freeways: Accidents increased by 30.4%

  Other King's: Accidents increased by 22.2%

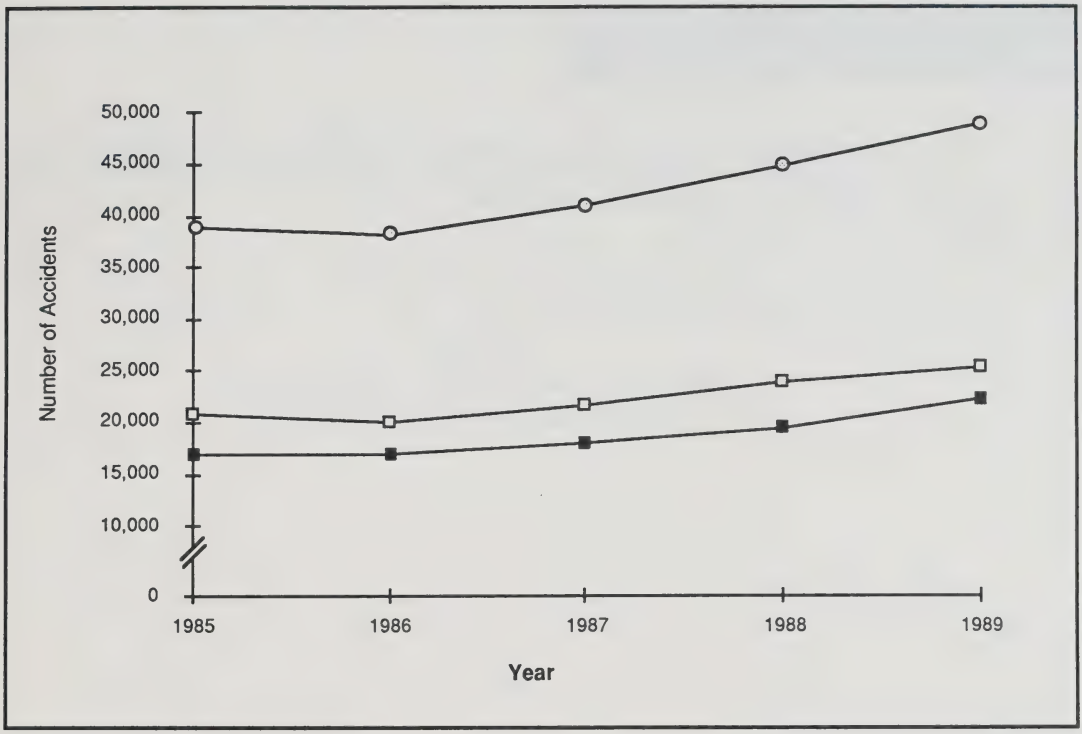
  All Hwys: Accidents increased by 25.6%

- Accident increases/decreases for each year are as follows:

PERIOD	FREEWAYS	OTHER KING'S	ALL HIGHWAYS
1985 to 86	decreased by .4%	decreased by 3.8%	decreased by 2.5%
1986 to 87	increased by 6%	increased by 8.1%	increased by 7.5%
1987 to 88	increased by 8.3%	increased by 11.1%	increased by 9.7%
1988 to 89	increased by 14.1%	increased by 5.7%	increased by 9.3%

SAFETY

• Trend in Accidents on Ontario Highways



LEGEND: ■ Freeways
□ Other King's Hwys
○ All Highways (Category includes Secondary and Tertiary roads)

NOTE: Data comes from the Masterfile based on Police Report Log. 1 Accident = 1 Incident regardless of number of cars involved.

IMPORTANT: Figures differ from previous years as source for **all** safety indicators is now the Safety Coordination & Development Office. Data is for all accidents, including accidents occurring on ramps and interchanges which is why figures are higher than previously recorded.

Type of Road	1985	1986	1987	1988	1989
Freeways	17,022	16,950	17,963	19,459	22,199
Other King's	20,711	19,933	21,547	23,949	25,312
All Highways	38,969	37,982	40,830	44,800	48,951

SOURCE: Safety Coordination & Development Office

• Accident Rates On Ontario Highways

Highlights

- Accident rates remained relatively consistent throughout the five year period from 1984 to 1988, however, the 1988 rates were as low as, or lower, than any of the previous years.

NOTE:
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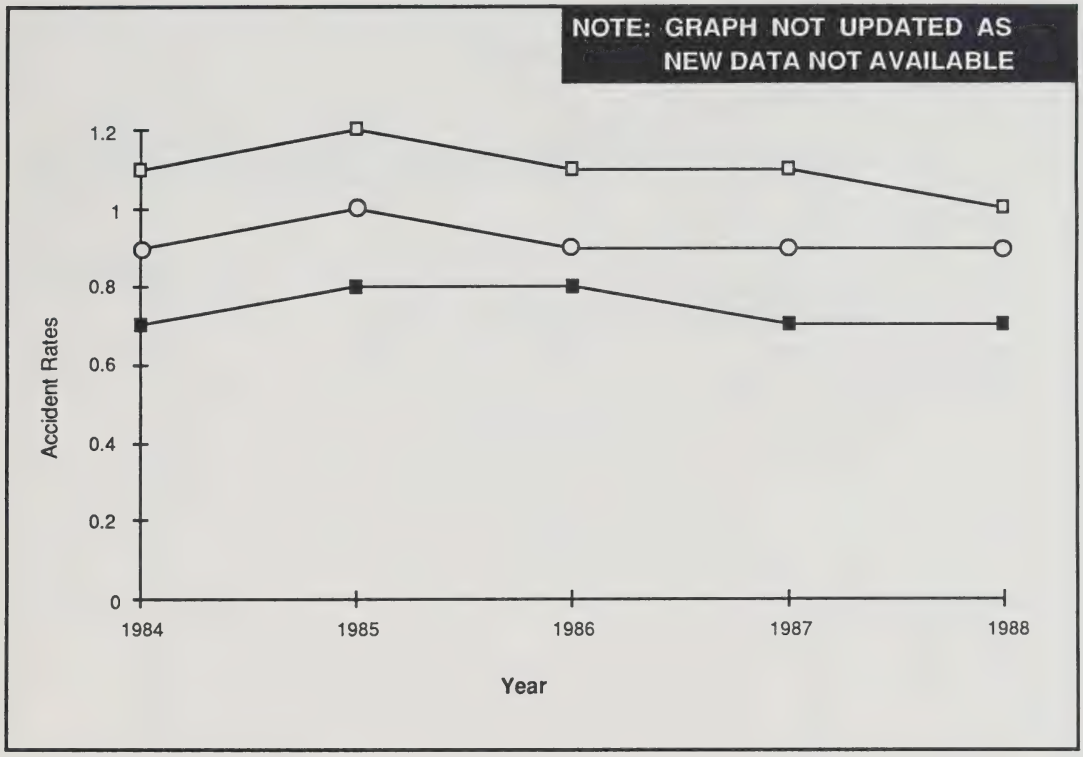
SAFETY

• Accident Rates On Ontario Highways



LEGEND: ■ Freeways
□ Other King's Hwys
○ All Highways *(NOTE: This total includes Secondary and Tertiary roads)*

NOTE: Reportable accident limit raised from $400.00 to $ 700.00 on January 1, 1985.
The Accident Rate is the number of accidents per million vehicle kilometres of travel (mvkm).

IMPORTANT: THESE STATISTICS **DO NOT INCLUDE ACCIDENTS ON RAMPS OR GENERAL INTERCHANGE AREAS** - TOTALS DIFFER, THEREFORE, FROM DATA PROVIDED BY THE SAFETY COORDINATION & DEVELOPMENT OFFICE FOR OTHER SAFETY GRAPHS

Type of Road	1984	1985	1986	1987	1988
Freeways	0.7	0.8	0.8	0.7	0.7
Other King's	1.1	1.2	1.1	1.1	1.0
All Highways	0.9	1	0.9	0.9	0.9

SOURCE: Transportation Capital Branch - Highway Planning Office

• Accidents by Location

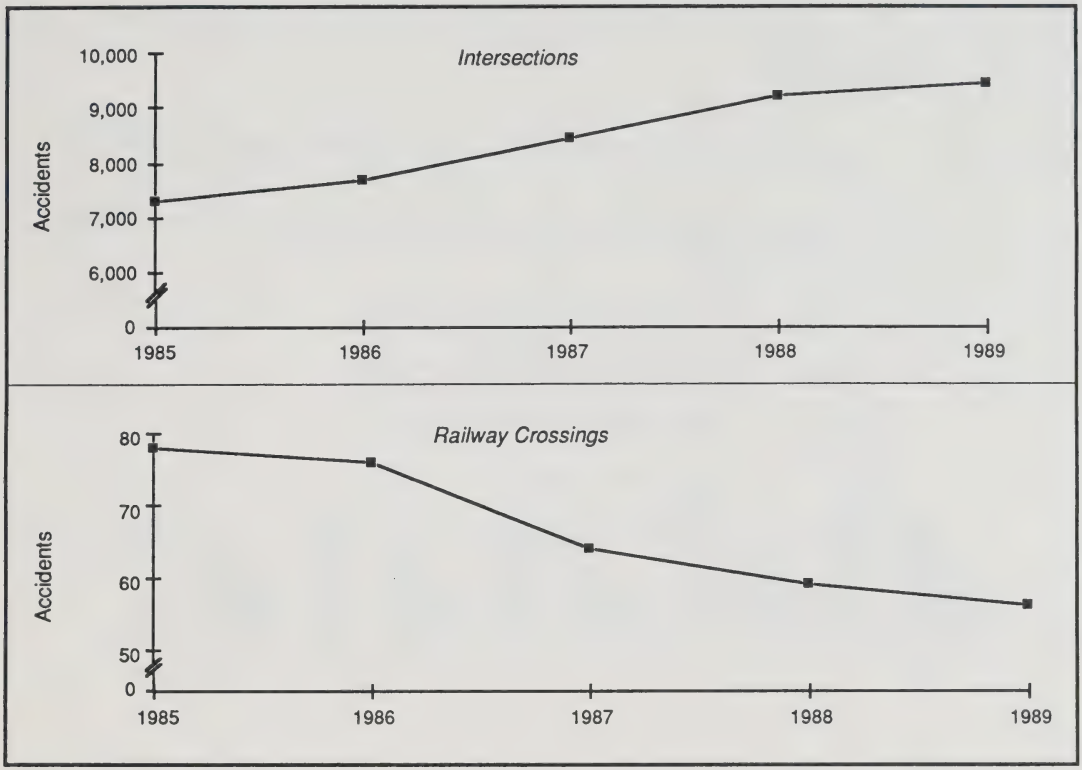
Highlights

- Intersection accidents increased steadily throughout the five years. They increased by 2,121 (or 29%) over the five year period from 1985 to 1989.

- Accidents at Railway Crossings decreased by 22 (or 28%) over the five year period from 1985 to 1989.

SAFETY

• Accidents by Location



NOTE: Data comes from the Masterfile based on Police Report Log. 1 Accident = 1 Incident regardless of number of cars involved.

Intersection Type	1985	1986	1987	1988	1989
Road Intersection	7,303	7,693	8,426	9,221	9,424
Railway Crossing	78	76	64	59	56

SOURCE: Safety Coordination & Development Office

• Accidents: Regional Comparison

Highlights

- Just over half of all accidents occurred in Central Region in 1989.

- Accidents in all regions increased over the five year period from 1985 to 1989, as follows:

  S.W.R. accidents increased by 18.3%

  C.R. accidents increased by 34.1%

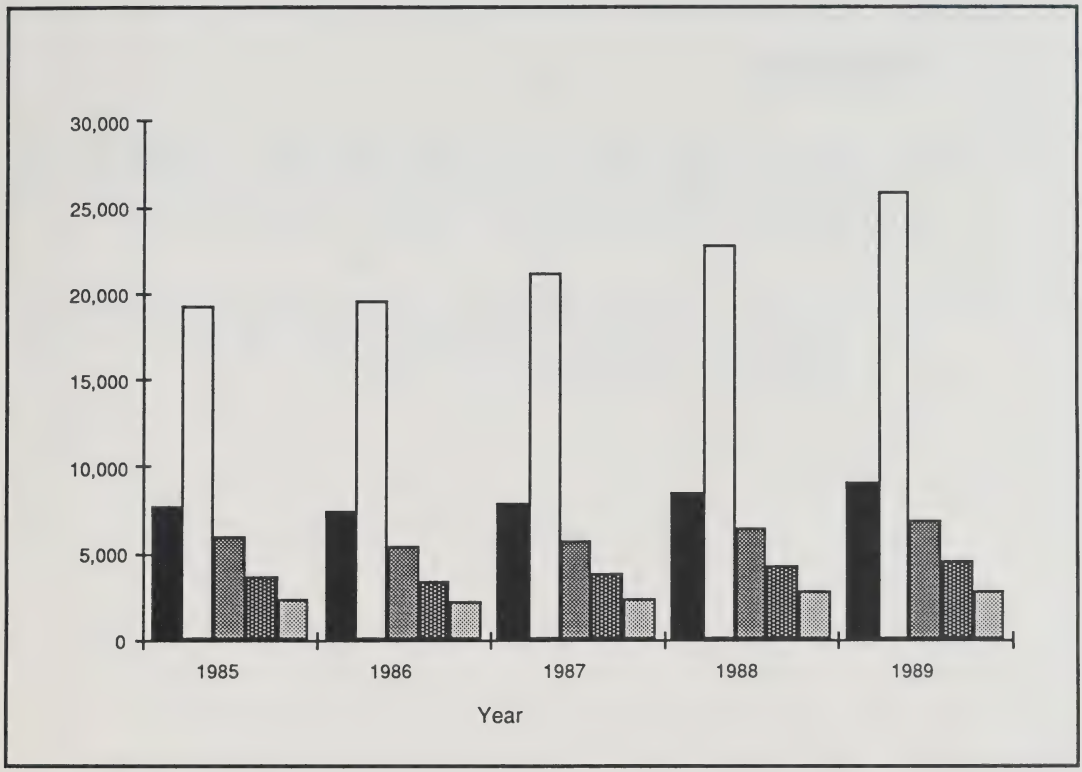
  E.R. accidents increased by 13.4%

  N.R. accidents increased by 22.8%

  N.W.R. accidents increased by 15.3%

SAFETY

• Accidents: Regional Comparison



LEGEND: SW C E N NW

NOTE: Data comes from the Masterfile based on Police Report Log. 1 Accident = 1 Incident regardless of number of cars involved.

Region	1985	1986	1987	1988	1989
Southwestern	7,682	7,367	7,871	8,496	9,087
Central	19,261	19,570	21,123	22,773	25,835
Eastern	5,984	5,448	5,748	6,455	6,786
Northern	3,663	3,390	3,751	4,273	4,499
Northwestern	2,379	2,207	2,337	2,803	2,744

SOURCE: Safety Coordination & Development Office

• Fatalities on Ontario Highways

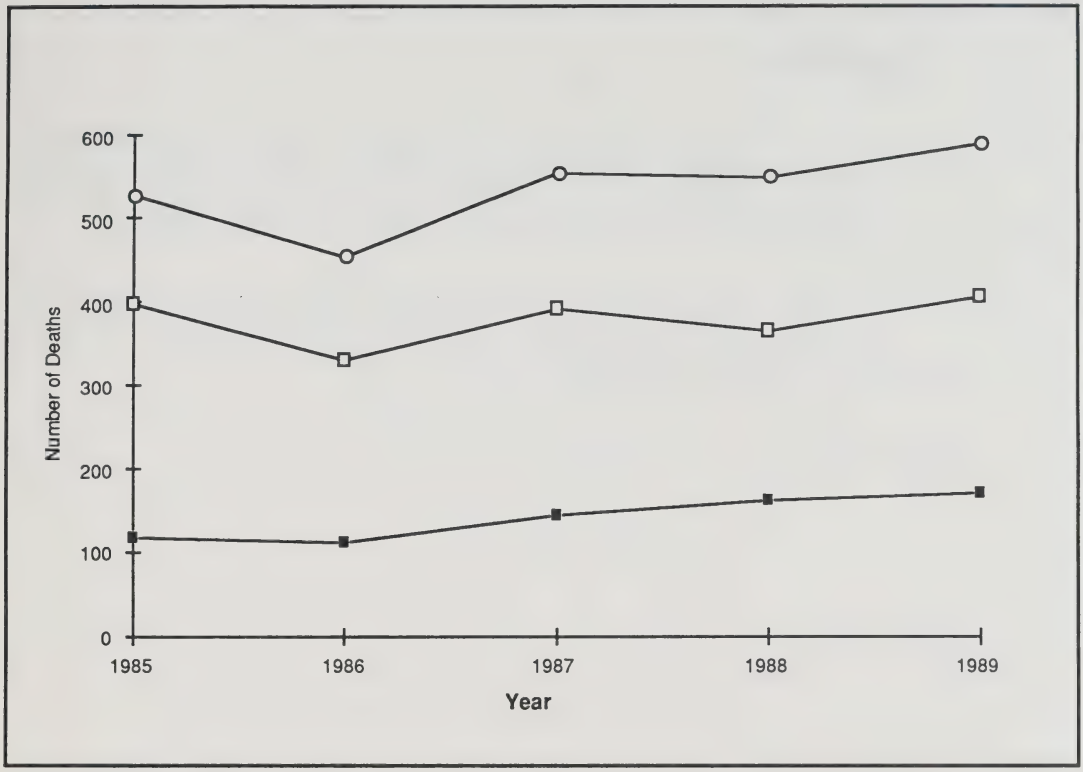
Highlights

- The number of fatalities on Other King's Highways fluctuated from year to year throughout the five year period (1985 - 1989). In 1989, the total number of fatalities on Other King's Highways increased by 42 (or 11.5%) over the previous year.

- Fatalities on Freeways declined in 1986 but then increased each year over the next three years (1987 - 1989). In 1989, fatalities on Freeways increased by 9 (or 5.6%) over the previous year.

SAFETY

• Fatalities on Ontario Highways



LEGEND: ■ Freeways
□ Other King's Highways
○ All Highways (Category includes Secondary and Tertiary roads)

NOTE: Data comes from the Masterfile based on Police Report Log.

Type of Road	1985	1986	1987	1988	1989
Freeways	119	111	143	162	171
Other King's Hwys	397	330	392	365	407
All Highways	526	455	554	547	590

SOURCE: Safety Coordination & Development Office

• Number of Persons Injured in Accidents

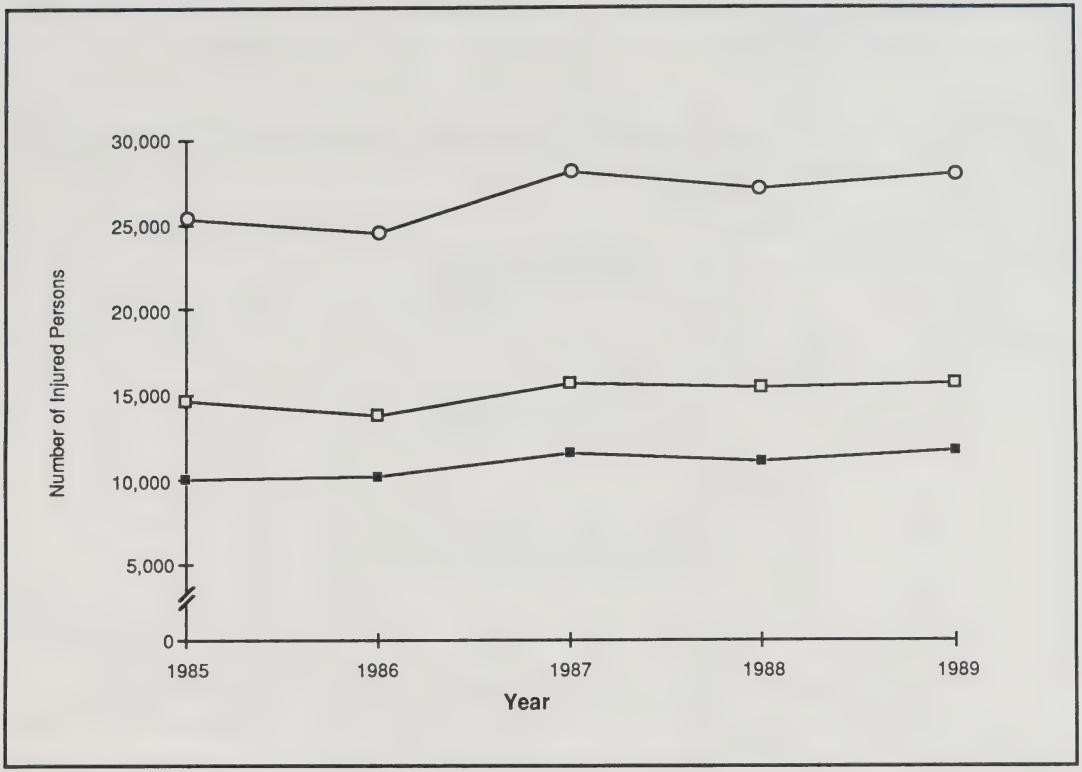
Highlights

- In 1989 the number of persons injured on Other King's Highways increased by 239 (or 1.6%) over the previous year. Injuries fluctuated on Other King's Highways from year to year, but increased by 961 (or 6.6%) when taken over the five year period from 1985 to 1989.

- In 1989 Freeway injuries also increased. They increased by 641 (or 5.8%) over the previous year. Taken over the five year period from 1985 to 1989, they increased by 1,672 (or 16.7%).

SAFETY

• Number of Persons Injured in Accidents on Ontario Highways



LEGEND: ■ Freeways
□ Other King's Highways
○ All Highways (Category includes Secondary and Tertiary roads)

NOTE: Data comes from the Masterfile based on Police Report Log.

Type of Road	1985	1986	1987	1988	1989
Freeways	9,992	10,128	11,577	11,023	11,664
Other King's Hwys	14,586	13,718	15,587	15,308	15,547
All Highways	25,335	24,486	27,988	27,113	27,928

SOURCE: Safety Coordination & Development Office

• Severity of Injuries Sustained in Accidents

Highlights

- The pattern of Injuries for the last year (i.e. 1989 over the previous year) is as follows:

  Freeways:
  Major injuries increased by 2.7%
  Minor injuries increased by 7.3%
  Minimal injuries increased by 5.3%

  Other King's Highways:
  Major injuries decreased by 2.4%
  Minor injuries increased by 1.9%
  Minimal injuries increased by 2.4%

  All Highways:
  Major injuries decreased by 1.2%
  Minor injuries increased by 3.7%
  Minimal injuries increased by 3.4%

- The pattern of Injuries for the five year period (1985 - 1989) is as follows:

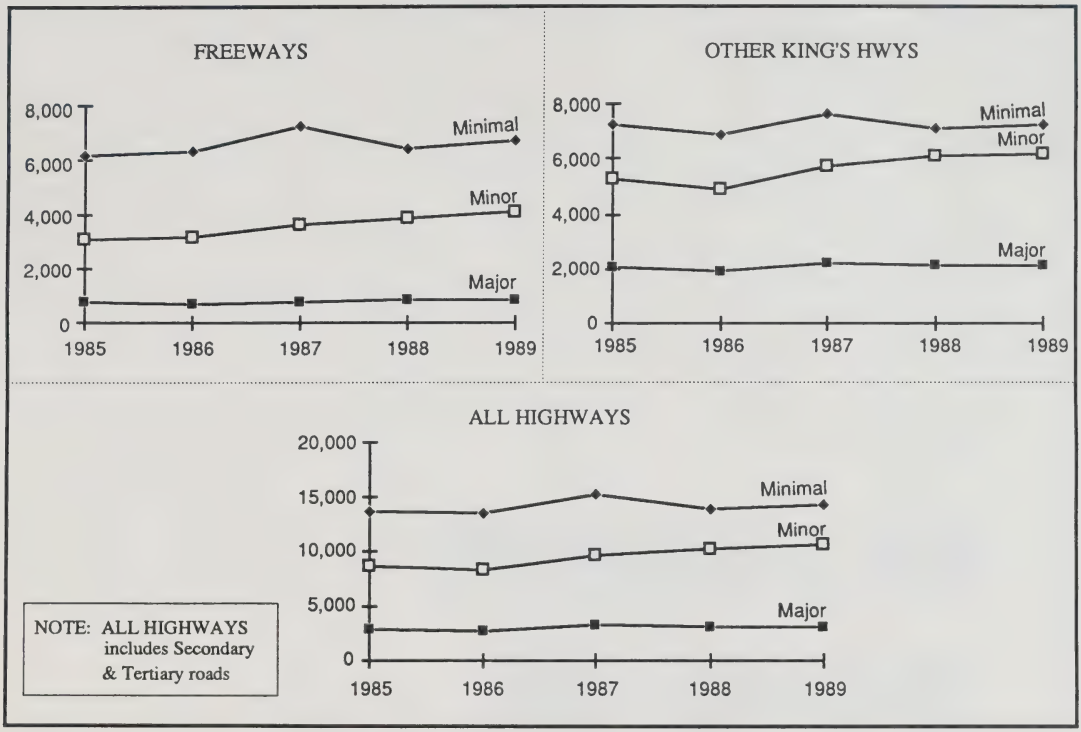
  Freeways:
  Major injuries increased by 13.2%
  Minor injuries increased by 32.4%
  Minimal injuries increased by 9.3%

  Other King's Highways:
  Major injuries increased by 1.2%
  Minor injuries increased by 17.4%
  Minimal injuries increased by .19% (i.e. less than 1%)

  All Highways:
  Major injuries increased by 4.7%
  Minor injuries increased by 22.2%
  Minimal injuries increased by 3.9%

SAFETY

• Severity of Injuries Sustained in Accidents on Ontario Highways

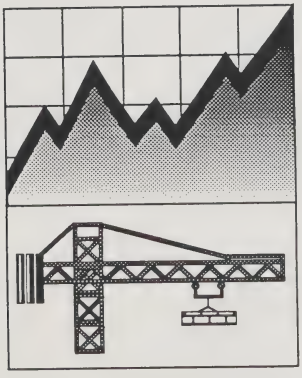


NOTE: Data comes from the Masterfile based on Police Report Log.

Severity of Injury according to Location		1985	1986	1987	1988	1989
Freeways	Major	759	714	770	836	859
	Minor	3,099	3,133	3,596	3,823	4,102
	Minimal	6,134	6,281	7,211	6,364	6,703
Other King's	Major	2,070	1,939	2,231	2,146	2,095
	Minor	5,287	4,876	5,752	6,092	6,209
	Minimal	7,229	6,903	7,604	7,070	7,243
All Highways	Major	2,943	2,749	3,169	3,116	3,080
	Minor	8,680	8,222	9,644	10,225	10,606
	Minimal	13,712	13,515	15,175	13,772	14,242

SOURCE: Safety Coordination & Development Office

Support to Economy



• Number of Capital Contracts

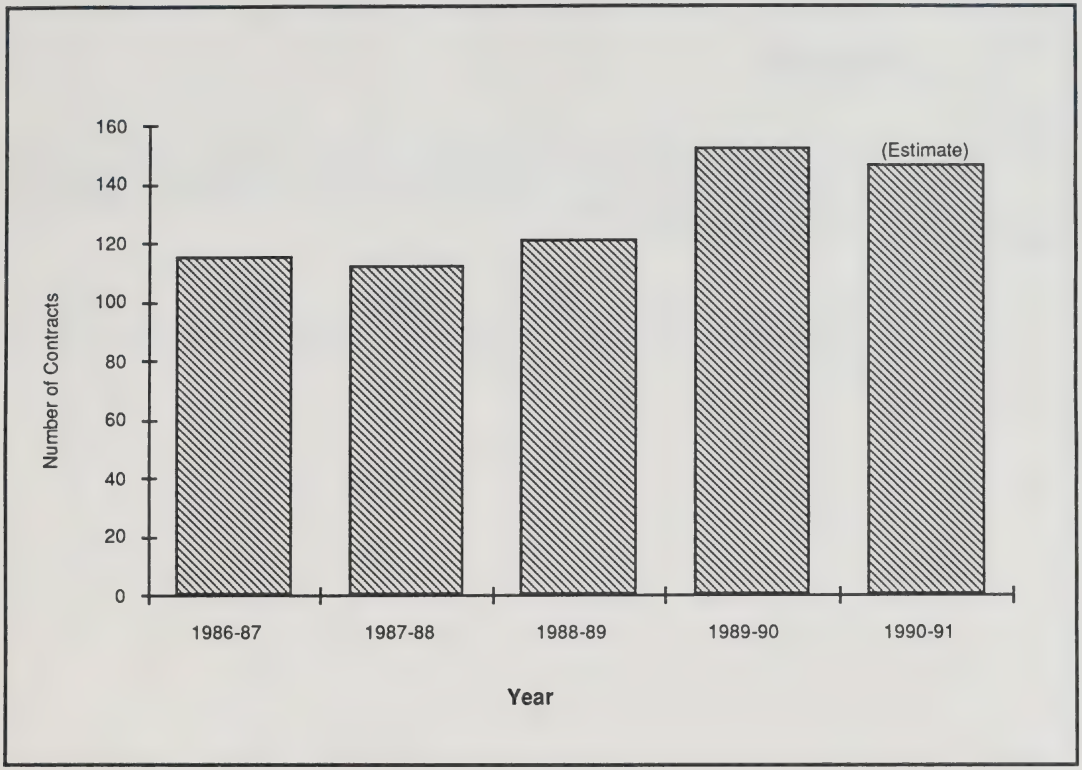
Highlights

- The estimated number of Capital Contracts for 1990-91 is 6 less than the previous year. The number is lower because of the high carry over in expenditure coming into 1990.

- Taken over the 5 year period from 1986-87 to 1990-91 there was an increase of 27% in the number of Capital Contracts.

SUPPORT TO ECONOMY

• Number of Capital Contracts



NOTE: Figures include the following Cost Centres:
4341 - MTO, 4381 - Northern Rds, 4386 - Northern Priority Rds,
4357 - Patrol Yards, 4358 - Truck Inspection Stations

	1986-87	1987-88	1988-89	1989-90	1990-91
Number of Contracts	115	112	121	152	146 (Estimate)

SOURCE: Transportation Capital Branch - Program Administration Office

• Dollar Value of Capital Contracts for Ontario

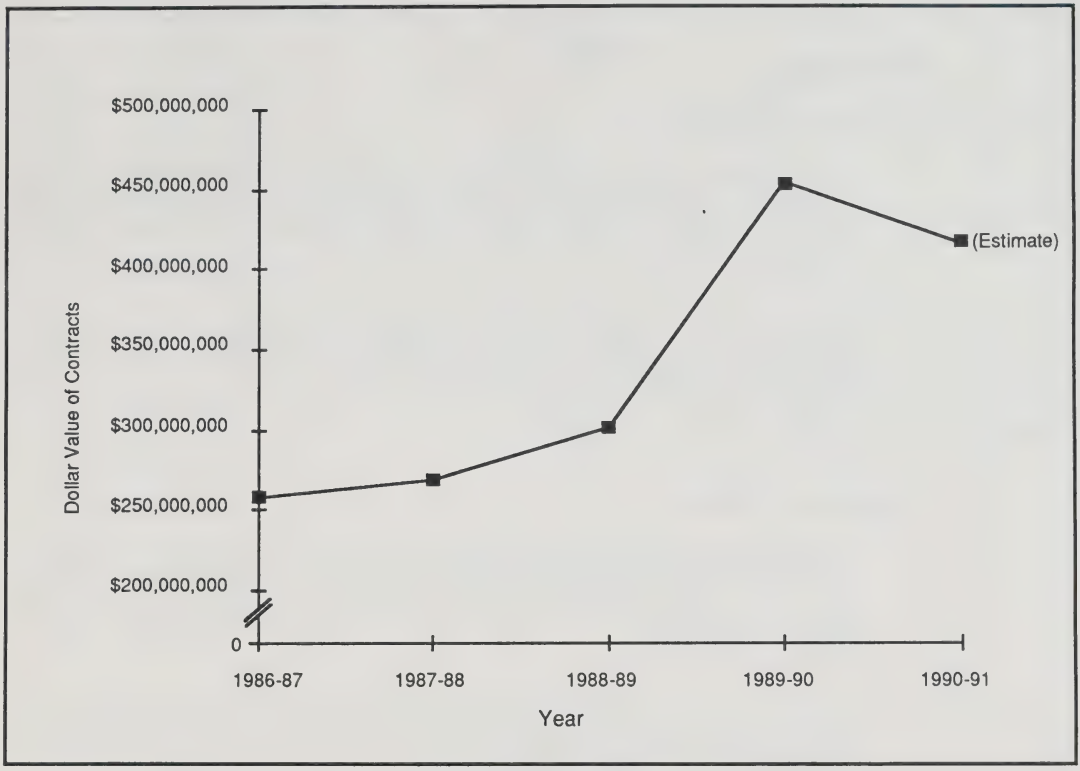
Highlights

- The estimated dollar value of Capital Contracts for the entire province for 1990-91 is approximately $37 million (or 8.3%) less than the previous year. The value is lower because of the high carry over in expenditure coming into 1990.

- Taken over the 5 year period from 1986-87 to *1990-91 (*estimated figure) there was an increase of $158 million (or 61.3%) in the value of contracts.

SUPPORT TO ECONOMY

• Dollar Value of Capital Contracts for Ontario



NOTE: Figures include the following Cost Centres:
4341 - MTO, 4381 - Northern Rds, 4386 - Northern Priority Rds,
4357 - Patrol Yards, 4358 - Truck Inspection Stations

Figures have been rounded-off

	1986-87	1987-88	1988-89	1989-90	1990-91
Dollar Value of Provincial Contracts	$258,000,000	$268,000,000	$300,588,000	$453,491,000	$416,055,000 (Estimate)

SOURCE: Transportation Capital Branch - Program Administration Office

• Dollar Value of Capital Contracts - N & S Ont.

Highlights

Northern Ontario

- The estimated dollar value of Capital Contracts for Northern Ontario for 1990-91 is approximately $28 million (or 22.9%) less than the previous year. The value is lower because of the high carry over in expenditure coming into 1990.

- Taken over the 5 year period from 1986-87 to *1990-91 (*estimated figure) there was an increase of approximately $42 million (or 80%) in the value of contracts in Northern Ontario.

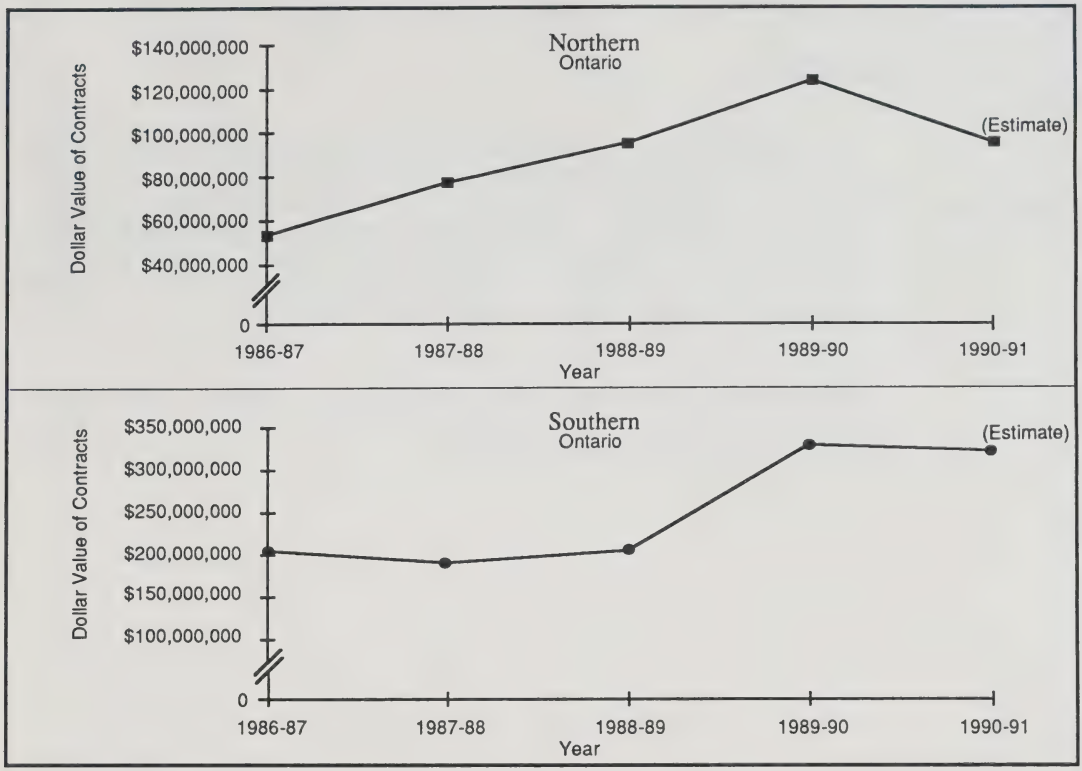
Southern Ontario

- The estimated dollar value of Capital Contracts for Southern Ontario for 1990-91 is approximately $9 million (or 2.8%) less than the previous year. The value is lower because of the high carry over in expenditure coming into 1990.

- Taken over the 5 year period from 1986-87 to *1990-91 (*estimated figure) there was an increase of approximately $116 million (or 56.5%) in the value of contracts in Southern Ontario.

SUPPORT TO ECONOMY

• Dollar Value of Capital Contracts - Northern & Southern Ontario



NOTE: Figures include the following Cost Centres:
4341 - MTO, 4381 - Northern Rds, 4386 - Northern Priority Rds,
4357 - Patrol Yards, 4358 - Truck Inspection Stations
Figures have been rounded-off

	1986-87	1987-88	1988-89	1989-90	1990-91
$ Value of Contracts Northern Ontario	$53,000,000	$77,000,000	$94,860,000	$123,506,000	$95,262,000 (Estimate)
$ Value of Contracts Southern Ontario	$205,000,000	$191,000,000	$205,728,000	$329,985,000	$320,793,000 (Estimate)

SOURCE: Transportation Capital Branch - Program Administration Office

• Dollar Value of GPP from Capital Contracts

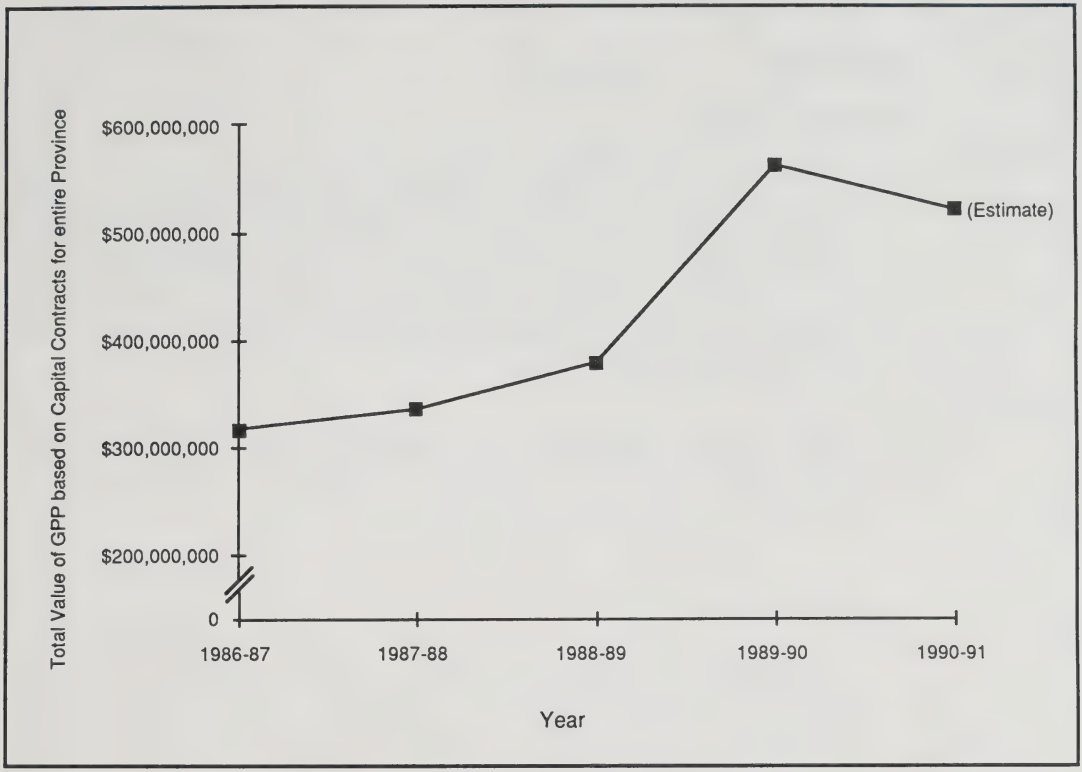
Highlights

- The estimated dollar value of the Gross Provincial Product (GPP) based on Capital Contracts for the entire province for *1990-91 (*estimated figure) was approximately $42 million (or 7.5%) less than the previous year. The GPP calculation is based on the value of Capital Contracts as indictated in the three previous graphs in this section. The decrease in GPP for 1990-91 reflects the decline in the number and value of Capital Contracts due to the high carry over in expenditure into 1990.

- Taken over the 5 year period from 1986-87 to *1990-91 (*estimated figure) the current dollar value of the GPP for Capital Contracts increased by approximately $202 million (or 63.7%).

SUPPORT TO ECONOMY

• Dollar Value of Gross Provincial Product from Capital Contracts



NOTE: Figures derived from Transportation Impact Model (TRIM)
Figures are in Current Dollars and have been rounded-off

	1986-87	1987-88	1988-89	1989-90	1990-91
$ Value of GPP based on Capital Contracts for entire Province	$317,472,200	$334,128,800	$376,935,700	$562,169,000	$519,803,400 (Estimate)

SOURCE: Transportation Capital Branch - Highway Planning Office

• Dollar Value of GPP - N & S Ont. Breakdown

Highlights

Northern Ontario

- The estimated dollar value of the Gross Provincial Product (GPP) based on Capital Contracts for Northern Ontario for *1990-91 (*estimated figure) was approximately $37 million (or 22.8%) less than the previous year. The GPP calculation is based on the number and value of Capital Contracts as indictated in the first three graphs in this section (i.e. Support to the Economy). The decrease in GPP for 1990-91 reflects the decline in the number and value of Capital Contracts due to the high carry over in expenditure into 1990.

- Taken over the 5 year period from 1986-87 to *1990-91 (*estimated figure) the dollar value of the GPP for Capital Contracts for Northern Ontario increased by approximately $57 million (or 80.7%).

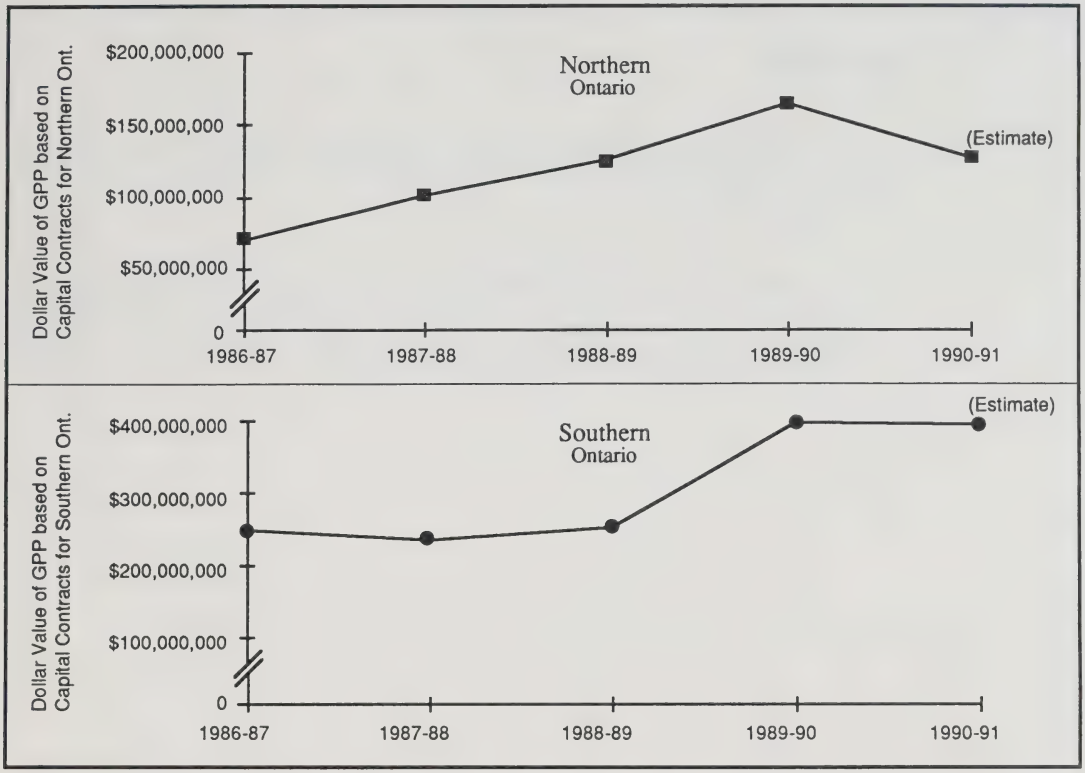
Southern Ontario

- The estimated dollar value of the Gross Provincial Product (GPP) based on Capital Contracts for Southern Ontario for *1990-91 (*estimated figure) was approximately $5 million (or 1.2%) less than the previous year. The GPP calculation is based on the number and value of Capital Contracts as indictated in the first three graphs in this section (i.e. Support to the Economy). The decrease in GPP for 1990-91 reflects the decline in the number and value of Capital Contracts due to the high carry over in expenditure into 1990.

- Taken over the 5 year period from 1986-87 to *1990-91 (*estimated figure) the dollar value of the GPP for Capital Contracts for Southern Ontario increased by approximately $146 million (or 58.9%).

SUPPORT TO ECONOMY

• Dollar Value of Gross Provincial Product - N & S Ont. Breakdown



NOTE: Figures derived from Transportation Impact Model (TRIM)
Figures are in Current Dollars and have been rounded-off

	1986-87	1987-88	1988-89	1989-90	1990-91
$ Value of GPP - Northern Ontario	$70,270,800	$100,638,200	$125,632,400	$164,375,300	$126,947,300 (Estimate)
$ Value of GPP - Southern Ontario	$247,201,400	$233,490,600	$251,303,300	$397,793,700	$392,856,100 (Estimate)

SOURCE: Transportation Capital Branch - Highway Planning Office

• Dollar Value - MTO Salaries for Cap. Contracts

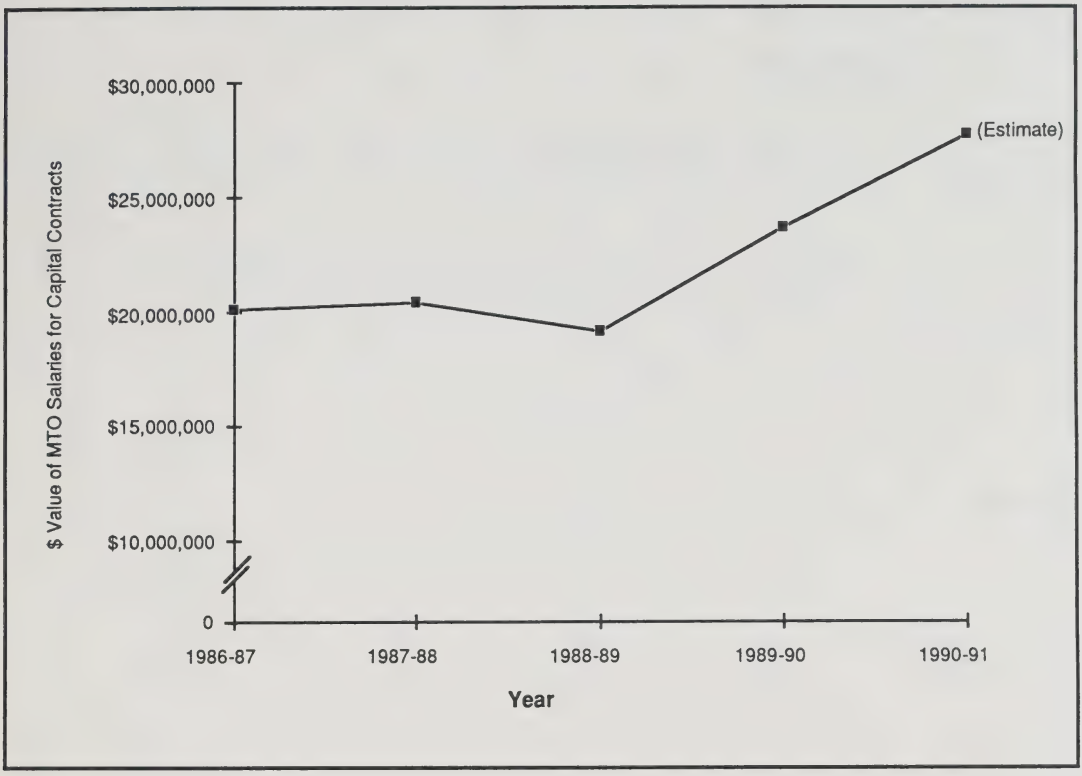
Highlights

- The estimated dollar value of MTO Salaries for Capital Contracts in 1990-91 shows an increase of approximately $4 million (or 17.3%) over the previous year.

- The dollar value of MTO Salaries fluctuated somewhat throughout the 5 year period from 1986-87 to 1990-91 (estimated figure), decreasing in 1988-89, then, increasing once again in 1989-90 and 1990-91 to show an overall increase of approximately $7.6 million (or 37.6%) over the 5 years.

SUPPORT TO ECONOMY

• Dollar Value of MTO Salaries for Capital Contracts



	1986-87	1987-88	1988-89	1989-90	1990-91
$ Value of MTO Salaries for Capital Contracts	$20,130,500	$20,362,700	$19,110,100	$23,611,100	$27,706,400 (Estimate)

SOURCE: Transportation Capital Branch - Program Administration Office

• Employment In Ont. from Cap. Contracts

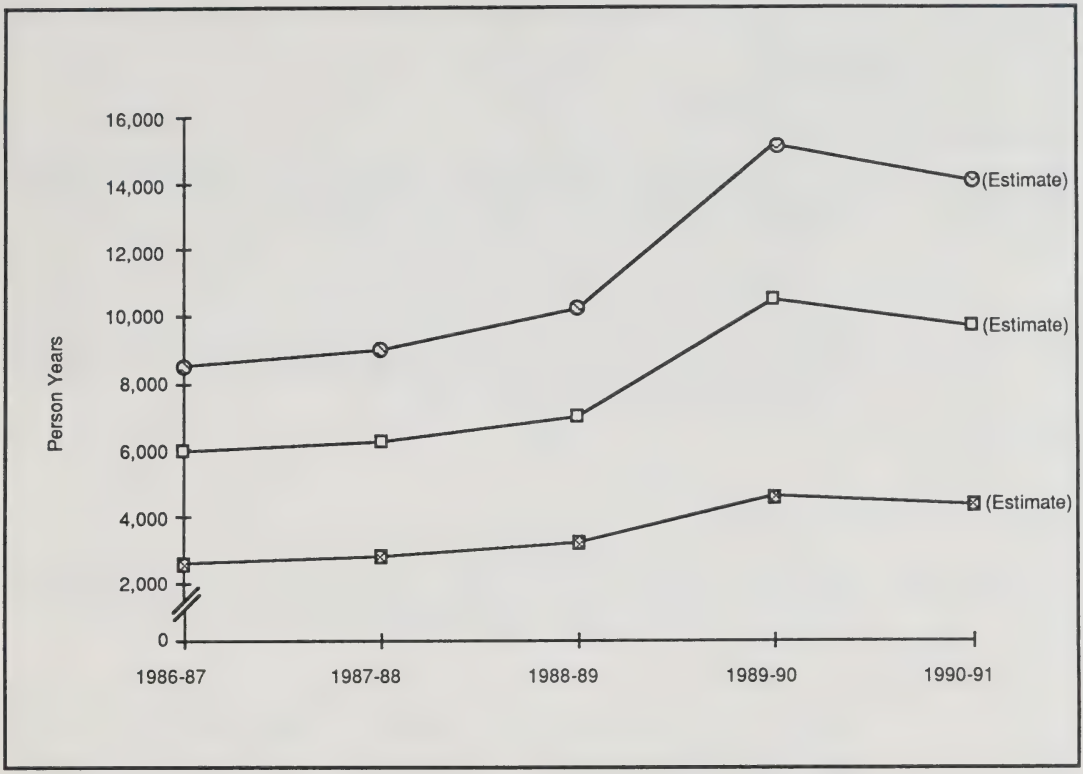
Highlights

- The Total number of jobs estimated for 1990-91 was 14,002. This figure represents a decrease of 1,111 jobs (or 7.4%) from the previous year.

- Despite the decrease in 1990-91, there was an increase of 5,477 jobs (or 64.2%) over the 5 year period from 1986-87 to 1990-91.

SUPPORT TO ECONOMY

• Employment Created in Ontario from Capital Contracts



LEGEND: ⊠ Initial
□ Indirect & Induced
◔ Total

NOTE: Figures derived from the Transportation Impact Model (TRIM).
Figures are for MTO & MND&M.
Figures are based on the Value of Capital Contracts reported in this document.

Type of Employment in Person Years	1986-87	1987-88	1988-89	1989-90	1990-91
Initial	2,585	2,806	3,223	4,622	4,334 Estimate
Indirect & Induced	5,940	6,198	6,955	10,491	9,668 Estimate
Total	8,525	9,004	10,178	15,113	14,002 Estimate

SOURCE: Transportation Capital Branch - Highway Planning Office

• Employment Created - N & S Ontario Contracts

Highlights

Northern Ontario

- The estimated Total number of jobs from Capital Contracts in Northern Ontario in 1990-91 was 3,477. This figure represents a decrease of 1,020 jobs (or 22.7%) from the previous year.

- Despite the decrease in 1990-91, there was an increase of approximately 1,551 jobs (or 80.5%) over the 5 year period from 1986-87 to 1990-91. Please note: jobs are not confined to Northern Ontario and may be spread over the entire province.

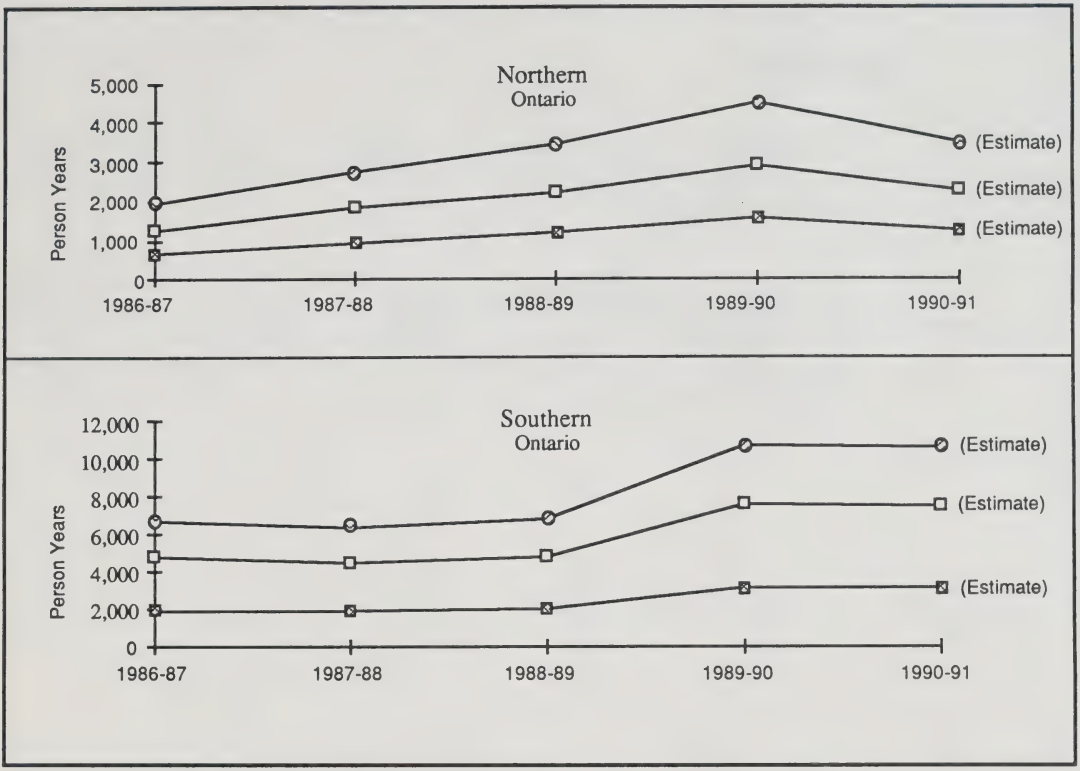
Southern Ontario

- The estimated Total number of jobs from Capital Contracts in Southern Ontario in 1990-91 was 10,525. This figure represents a decrease of 91 jobs (or less than 1%) from the previous year.

- There was an increase of approximately 3,926 jobs (or 59.5%) over the 5 year period from 1986-87 to 1990-91. Please note: jobs are not confined to Southern Ontario and may be spread over the entire province.

SUPPORT TO ECONOMY

• Employment Created - Northern & Southern Ont. Contracts



LEGEND: ⊠ Initial
□ Indirect & Induced
⊖ Total

NOTE: Figures derived from the Transportation Impact Model (TRIM). Figures are based on the Value of Capital Contracts reported in this document for Northern Ont. and for Southern Ont., however, jobs are not confined to that locale and may be spread over the entire province.

Type of Employment in Person Years	1986-87	1987-88	1988-89	1989-90	1990-91	
Northern Ontario Contracts						
Initial	683	935	1,211	1,572	1,223	Estimate
Indirect & Induced	1,243	1,809	2,229	2,925	2,254	Estimate
Total	1,926	2,744	3,440	4,497	3,477	Estimate
Southern Ontario Contracts						
Initial	1,902	1,871	2,012	3,050	3,111	Estimate
Indirect & Induced	4,697	4,389	4,726	7,566	7,414	Estimate
Total	6,599	6,260	6,738	10,616	10,525	Estimate

SOURCE: Transportation Capital Branch - Highway Planning Office

• Labour Income In Ont. from Contracts

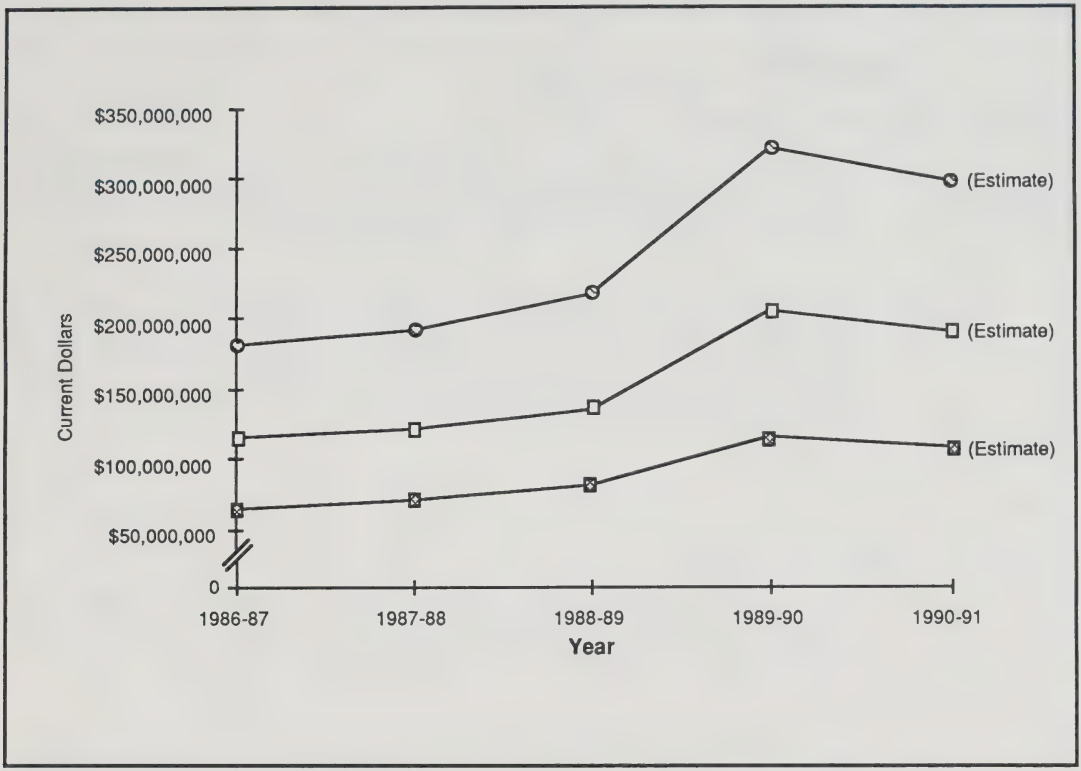
Highlights

- The estimated expenditure of $416 million for Capital Contracts (i.e. construction projects) in 1990-91 would increase Ontario's income by approximately $298 million.

- The estimated total Labour Income of $298 million for 1990-91 represents a decrease of $23.4 million (or 7.3%) from the previous year. Despite the decrease in 1990-91, there was an increase of approximately $117 million (or 64.6%) over the 5 year period from 1986-87 to 1990-91.

SUPPORT TO ECONOMY

• Labour Income Generated in Ontario from Capital Contracts



LEGEND: ⊠ Initial
□ Indirect & Induced
⊖ Total

NOTE: Figures derived from the Transportation Impact Model (TRIM)
Figures are for MTO and MND&M
Figures are in Current $ and Have been rounded-off
Figures are based on the Value of Capital Contracts reported in this document

Type of Income	1986-87	1987-88	1988-89	1989-90	1990-91
Initial	$64,834,200	$70,352,100	$80,817,400	$115,906,800	$108,664,000 Estimate
Indirect & Induced	$116,322,100	$121,109,300	$135,610,100	$205,706,200	$189,500,200 Estimate
Total	$181,156,300	$191,461,400	$216,427,500	$321,613,000	$298,164,200 Estimate

SOURCE: Transportation Capital Branch - Highway Planning Office

• Labour Income - N & S Ont. Contracts

Highlights

Northern Ontario

- The estimated expenditure of $95.3 million for Capital Contracts (i.e. construction projects) in Northern Ontario in 1990-91 would increase Ontario's income by approximately $74.3 million.

- The estimated total Labour Income of $74.3 million for 1990-91 represents a decrease of $21.9 million (or 22.8%) from the previous year. Despite the decrease in 1990-91, there was an increase of approximately $33.2 million (or 80.7%) over the 5 year period from 1986-87 to 1990-91.

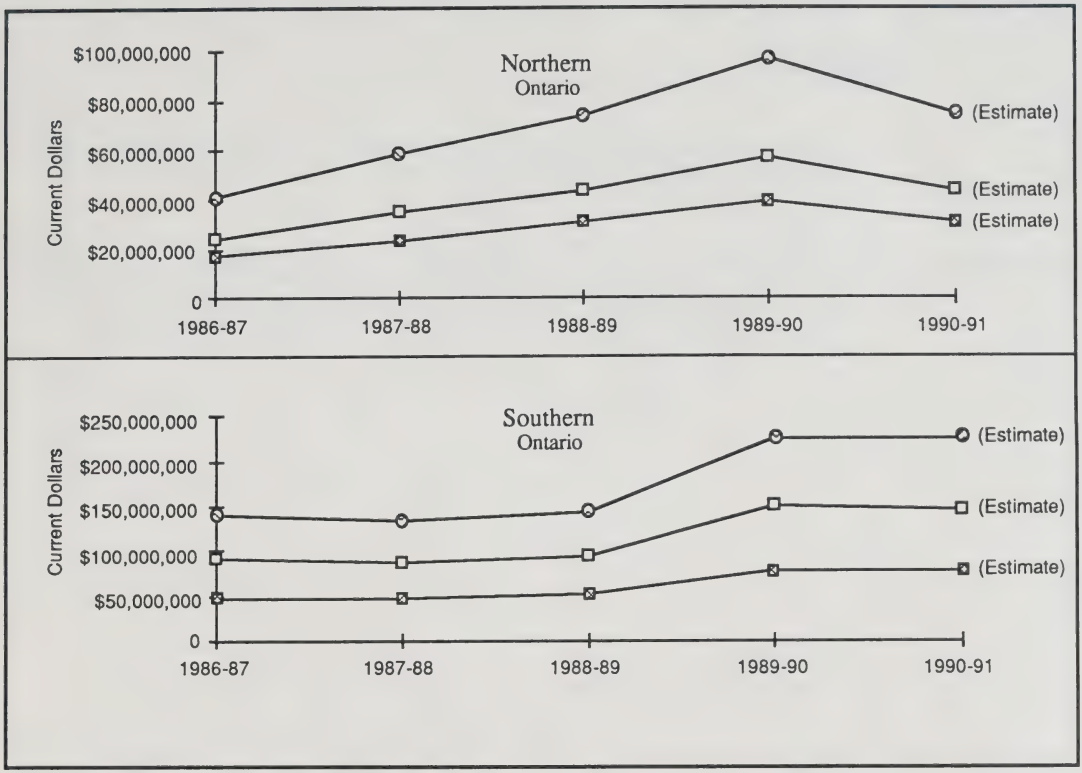
Southern Ontario

- The estimated expenditure of $320.8 million for Capital Contracts (i.e. construction projects) in Southern Ontario in 1990-91 would increase Ontario's income by approximately $223.9 million.

- The estimated total Labour Income of $223.9 million for 1990-91 represents a decrease of $1.5 million (or less than 1%) from the previous year. Despite the decrease in 1990-91, there was an increase of approximately $83.8 million (or 59.9%) over the 5 year period from 1986-87 to 1990-91.

SUPPORT TO ECONOMY

• Labour Income Generated - Northern & Southern Ont. Contracts



LEGEND: ⊠ Initial
□ Indirect & Induced
⊙ Total

NOTE: Figures derived from the Transportation Impact Model (TRIM). Figures are based on the Value of Capital Contracts reported in this document for Northern Ont. and for Southern Ont., however, labour income is not confined to that locale and may be spread over the entire province.

Type of Income	1986-87	1987-88	1988-89	1989-90	1990-91	
Northern Ontario Contracts						
Initial	$17,136,000	$23,441,100	$30,371,300	$39,424,500	$30,670,000	Estimate
Indirect & Induced	$23,976,400	$35,070,200	$42,972,300	$56,767,100	$43,600,800	Estimate
Total	$41,112,400	$58,511,300	$73,343,600	$96,191,600	$74,270,800	Estimate
Southern Ontario Contracts						
Initial	$47,698,200	46,911,000	$50,446,100	$76,482,300	$77,994,000	Estimate
Indirect & Induced	$92,345,700	$86,039,100	$92,637,800	$148,939,100	$145,899,400	Estimate
Total	$140,043,900	$132,950,100	143,083,900	$225,421,400	$223,893,400	Estimate

SOURCE: Transportation Capital Branch - Highway Planning Office

• Tax Revenue from Capital Contracts

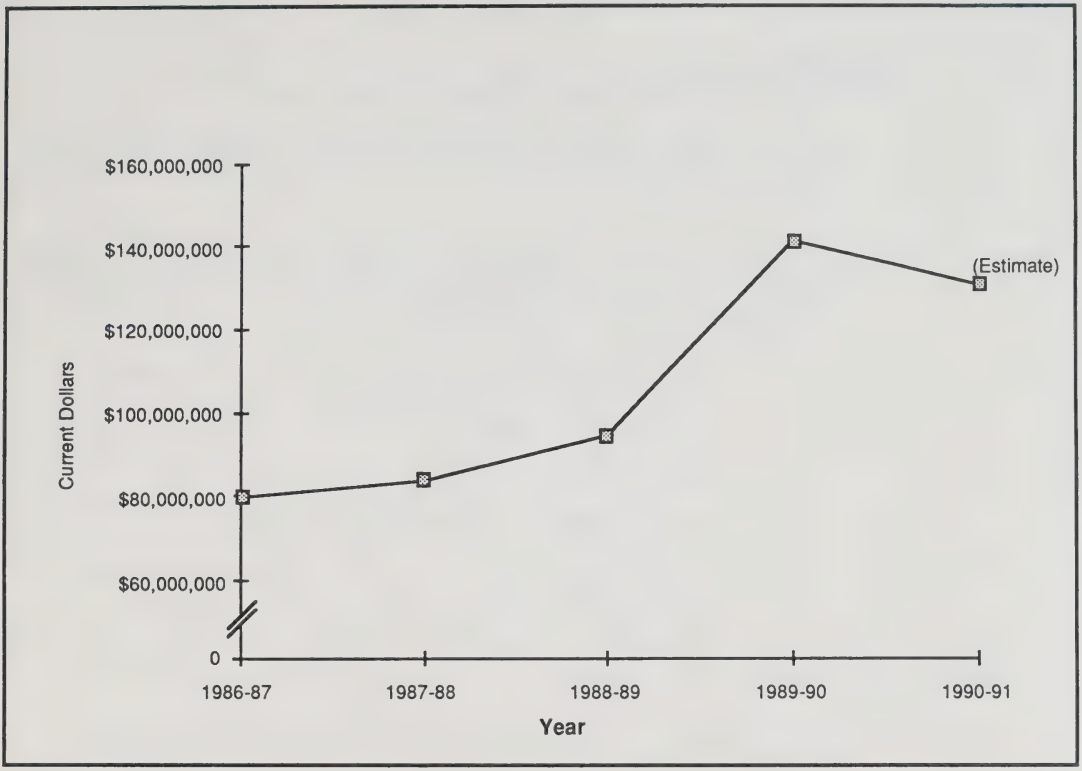
Highlights

- A proposed Capital Construction expenditure of $416 million in 1990-91 would generate an estimated $130.4 million in total tax revenue.

- The estimated Total Tax Revenue of $130.4 million for 1990-91 represents a decrease of $10.6 million (or 7.5%) from the previous year. Despite the decrease in 1990-91, there was an increase of $50.7 million (or 63.7%) over the 5 year period from 1986-87 to 1990-91.

SUPPORT TO ECONOMY

• Tax Revenue Generated from Capital Contracts



NOTE: Figures are estimates derived from the Transportation Impact Model (TRIM). Figures are in Current dollars
Figures are based on the Value of Capital Contracts reported in this document
Total Tax Revenue includes: Personal tax, Indirect Business tax, Tariffs, Corporate Profit tax, and Property & Business tax collected at the Federal, Provincial & Local levels

	1986-87	1987-88	1988-89	1989-90	1990-91
Total Tax Revenue	$79,653,500	$83,789,400	$94,468,200	$141,025,000	$130,402,000 Estimate

SOURCE: Transportation Capital Branch - Highway Planning Office

• Value of Program Delivery Consultant Assign.

Highlights

- The total value of Program Delivery Consultant Assignments for the province rose by $21.4 million (or 191.3%) from 1985-86 to 1989-90.

- All regions, as well as Head Office, showed an increase in the value of Consultant Assignments over the 5 year period from 1985-86 to 1989-90. The increases over the 5 years were as follows:

  Central Region increased by 126.9%

  Southwestern Region increased by 246.2%

  Eastern Region increased by 329.1%

  Northern Region increased by 426.3%

  Northwestern Region increased by 458.4%

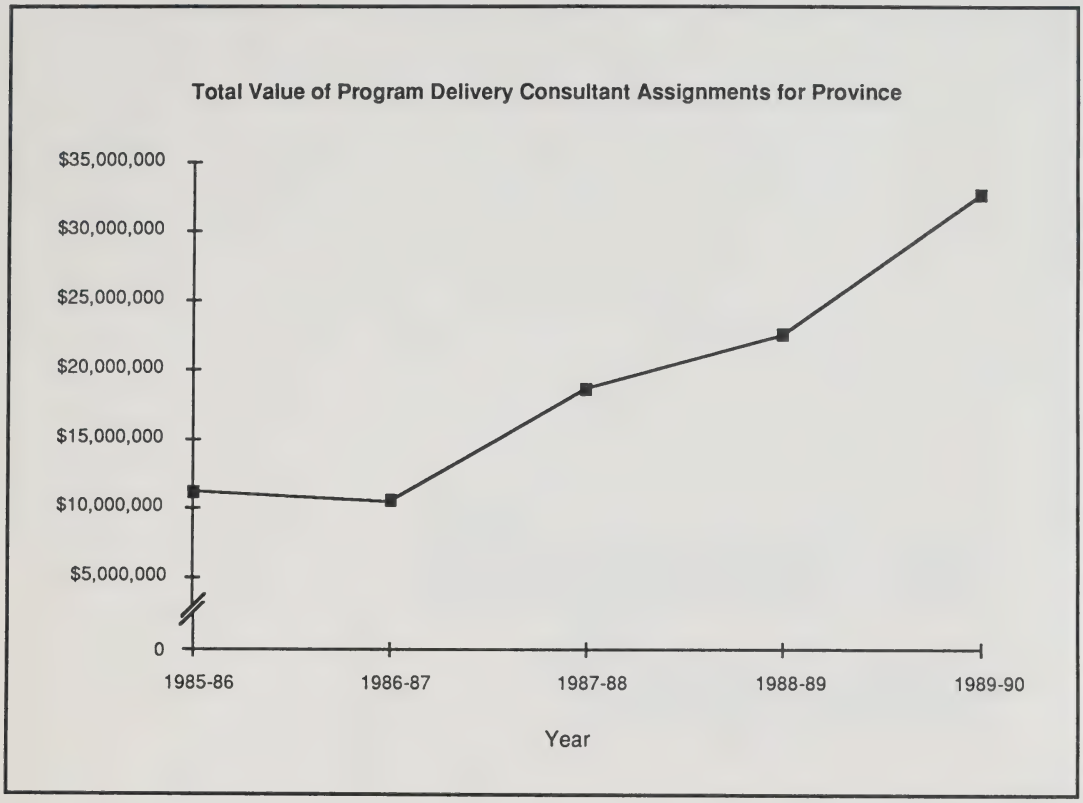
  Head Office increased by 83.6%

- Regional percentages of the Total Provincial Value were as follows:

1985-86	1989-90
Central Region = 50.8%	Central Region = 39.6%
Southwestern Region = 6.7%	Southwestern Region = 8.0%
Eastern Region = 11.7%	Eastern Region = 17.2%
Northern Region = 5.9%	Northern Region = 10.7%
Northwestern Region = 6.9%	Northwestern Region = 13.2%
Head Office = 18.0%	Head Office = 11.3%

SUPPORT TO ECONOMY

• Dollar Value of Program Delivery Consultant Assignments

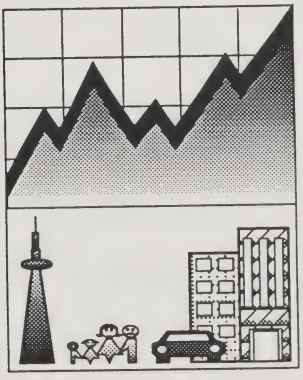


NOTE: Covers Planning, Design, Structural Design, Bridge Deck Condition Surveys, Miscellaneous, F.T.M.S.

Regions	1985-86	1986-87	1987-88	1988-89	1989-90
Central	$5,685,000	$4,676,000	$8,200,000	$9,700,000	$12,900,000
Southwestern	$751,000	$1,090,000	$1,100,000	$2,100,000	$2,600,000
Eastern	$1,305,000	$1,537,000	$1,786,000	$2,300,000	$5,600,000
Northern	$665,000	$1,183,000	$1,539,000	$2,800,000	$3,500,000
Northwestern	$770,000	$932,000	$2,196,000	$2,200,000	$4,300,000
Head Office	$2,015,000	$1,100,000	$3,820,000	$3,400,000	$3,700,000
TOTAL PROVINCE	**$11,190,000**	**$10,520,000**	**$18,641,000**	**$22,500,000**	**$32,600,000**

SOURCE: Newcase System Output - Highway Engineering Division

Support to Tourism



• Other Province Travellers in Ontario

Highlights

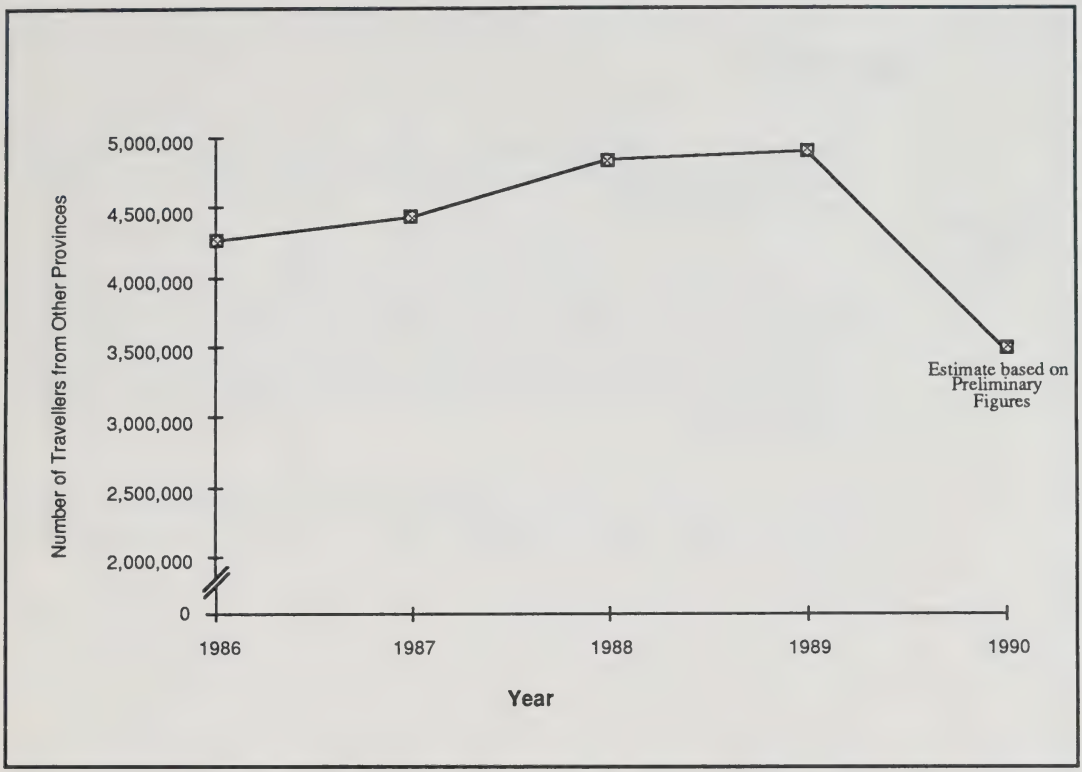
- A decrease of 29.1% in travel in Ontario by residents of other provinces in 1990 compared with the previous year (1989) is estimated by the Ministry of Tourism based on the preliminary figures.

  No explanation or analysis of this decrease was available from the Ministry of Tourism, however, it seems reasonable to suggest that the downturn in 1990 reflects the recessionary nature of the economy.

- Based on the preliminary figures for 1990, there appears to be a decrease of approximately 18.4% of other province travellers in Ontario over the 5 year period from 1986 to 1990, however, it is important to keep in mind that there was an increase during each of the intervening years. Other Province travellers may increase once again as the economy recovers.

SUPPORT TO TOURISM

• Other Province Travellers in Ontario



	1986	1987	1988	1989	1990
Other Province Travellers	4,257,000	4,427,000	4,829,000	4,897,000	*3,474,000 *Estimate based on Preliminary Figures

SOURCE: Ministry of Tourism & Recreation - Tourism Marketing Branch

• Ontario Resident Travellers in Ontario

Highlights

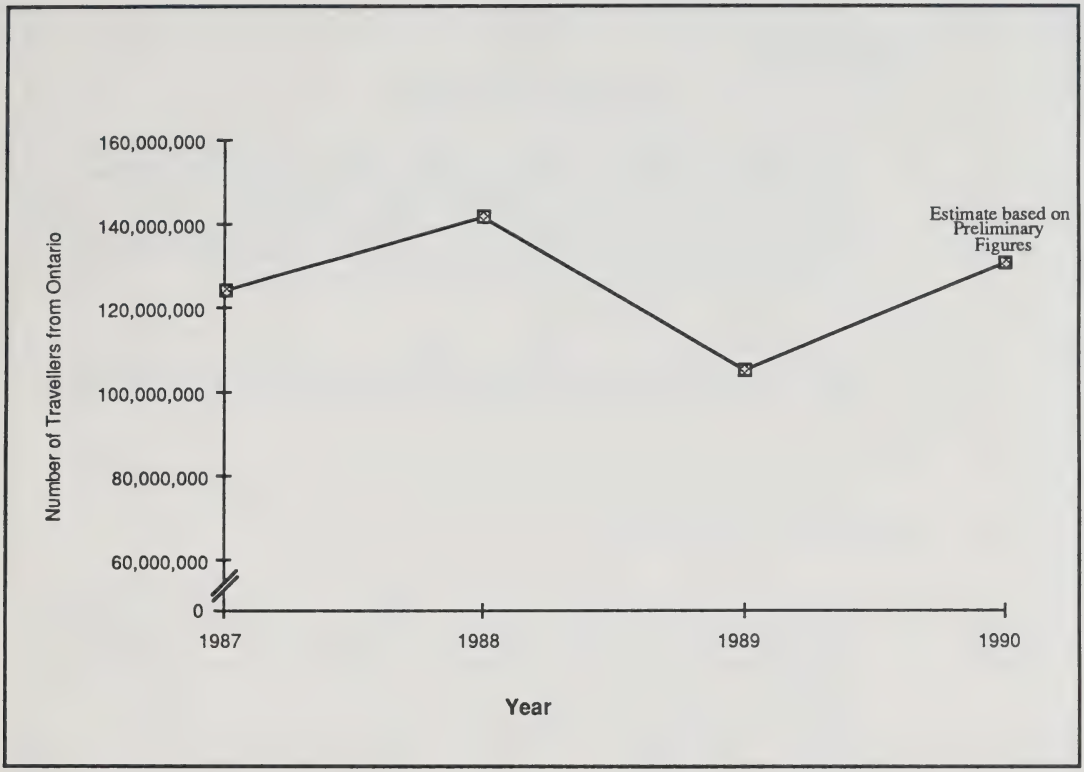
- The number of Ontario resident travellers in Ontario increased by approximately 24% in 1990 (based on preliminary figures) over the previous year (1989).

  No explanation or analysis of this increase was available from the Ministry of Tourism, however, it may be that Ontario residents travelled within the province rather than further afield due to the recessionary nature of the economy. An analysis should be forthcoming soon and will be published in the Ministry of Tourism's newsletter entitled 'Ontario Travel Monitor'.

- Travel in Ontario by Ontario residents fluctuated throughout the 4 year period, showing a slight increase of 5.3% in 1990 when compared with 1987.

SUPPORT TO TOURISM

• Ontario Resident Travellers in Ontario



	1987	1988	1989	1990
Ontario Resident Travellers	123,869,000	141,483,000	105,210,000	*130,439,000 *Estimate based on Preliminary Figures

SOURCE: Ministry of Tourism & Recreation - Tourism Marketing Branch

• Highway User Services

Highlights

- The number of freeway Service Centres has remained unchanged. 1 new service centre is currently under construction on Highway 401 eastbound, east of Winston Churchill Blvd. The Ministry began last year to initiate design work to increase the amount of truck parking spaces at service centres and refurbish the associated picnic areas. All 23 sites are scheduled for completion over a seven year period.

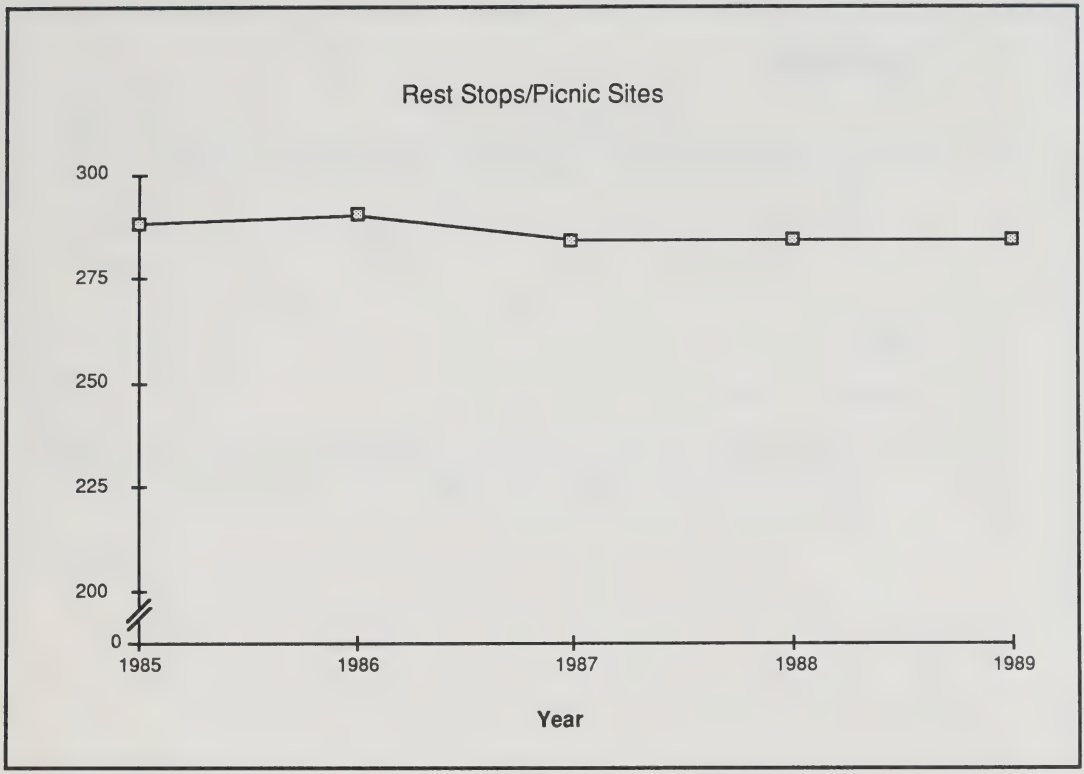
- The number of Rest Stops/Picnic Sites was reduced by 22% between 1981 and 1983 and then remained relatively stable from 1983 onward.

Additional Information:

The Ministry has completed a study which was undertaken to develop an integrated and comprehensive policy regarding the planning and provision of traveller services such as service centres, truck layovers, rest areas, picnic sites, information centres, etc., in Ontario. The policy which resulted from this study was approved in March, 1990 by the Minister. The Ministry is now in the process of refining existing freeway Service Centres to accommodate more truck parking and the refurbishing of associated picnic areas is well under way as noted above under 'Highlights'.

SUPPORT TO TOURISM

• Highway User Services



	1985	1986	1987	1988	1989
Rest Stops/Picnic Sites	288	290	284	284	284
Service Centres	23	23	23	23	23

SOURCE: Maintenance Br: Mtce Operations Office - Supply & Service Br: Service Centre Area Food Services Office

• Provincial Park Visitors

Highlights

- Provincial Highways and Tertiary Roads provided access to Parks for about 7.5 to 8 million visitors annually for the past 5 years.

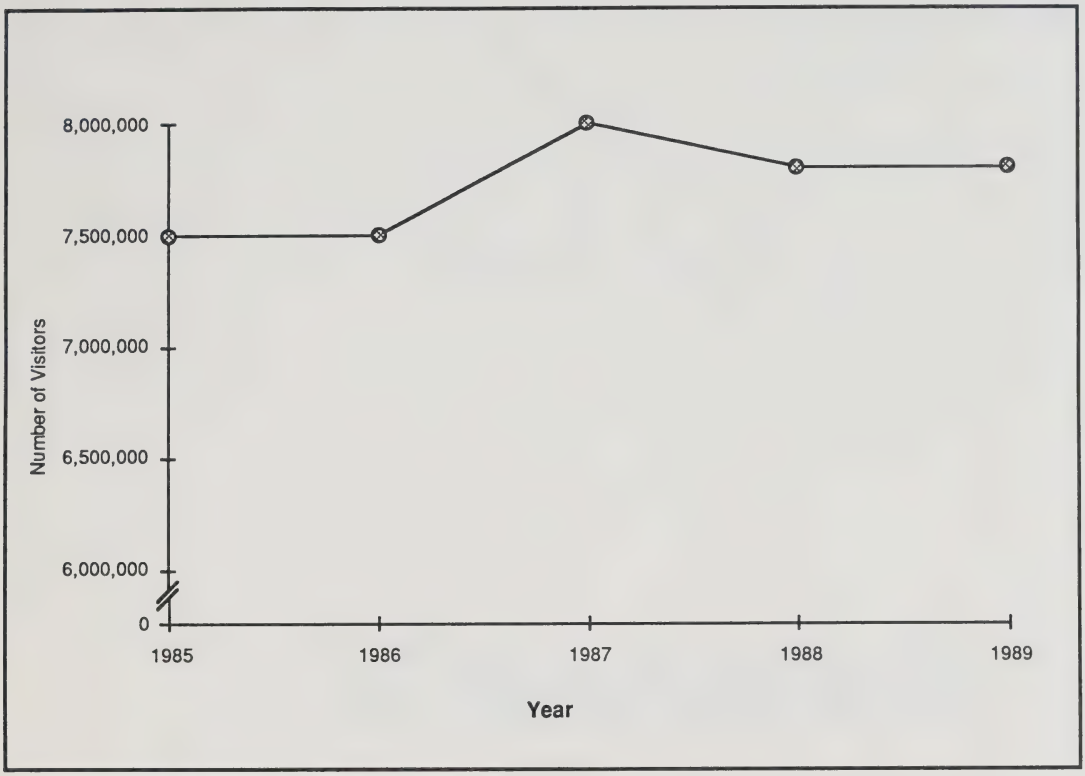
Note

Definition of Visitors:

average occupants/vehicle x number of daily vehicle permits + average occupants/vehicle x number of annual vehicle permits x 10 + number of bus permits x 40 + number of regular camper nights + group day-use vistors + group camping camper nights + free day-use visitors + visitors + interior camper nights.

SUPPORT TO TOURISM

• Provincial Park Visitors

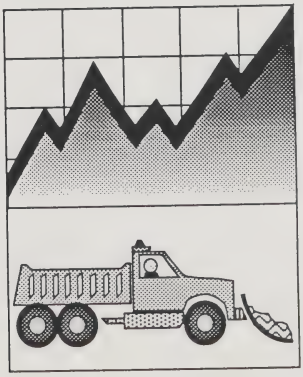


NOTE: Most parks are open during the summer season only

	1985	1986	1987	1988	1989
Visitors	7,500,000	7,500,000	8,000,000	7,800,000	7,800,000

SOURCE: Ministry of Natural Resources - Publication: Ontario Provincial Parks Statistics 1989

Maintenance



• Total Maintenance Allocation
(Current $ vs Constant $)

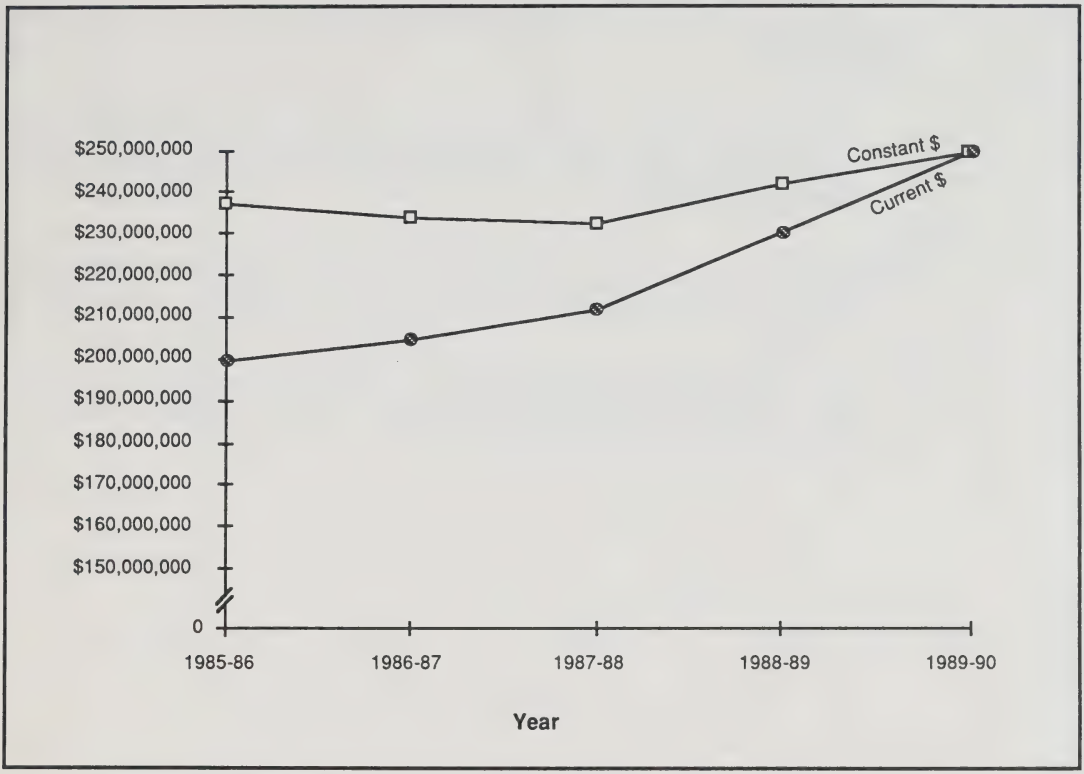
Highlights

- In **current dollars,** the Total Maintenance Allocation increased by $50 million (or 25.1%) over the five year period from 1985-86 to 1989-90.

- In **constant dollars,** the Allocation increased by $12 million (or 5.2%) over the five year period from 1985-86 to 1989-90.

MAINTENANCE

• Total Maintenance Allocation
(Current $ vs Constant $)



NOTE: Base year for Constant Dollars is 1989/90 - Figures have been rounded-off

	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$199,178,200	$204,366,000	$211,695,000	$230,018,400	$249,230,500
Constant Dollars	$237,022,058	$233,590,338	$232,017,720	$241,979,357	$249,230,500

SOURCE: Maintenance Branch, Public Accounts data excluding Employee Benefits

• Total Maintenance Expenditure
(Current $ vs Constant $)

Highlights

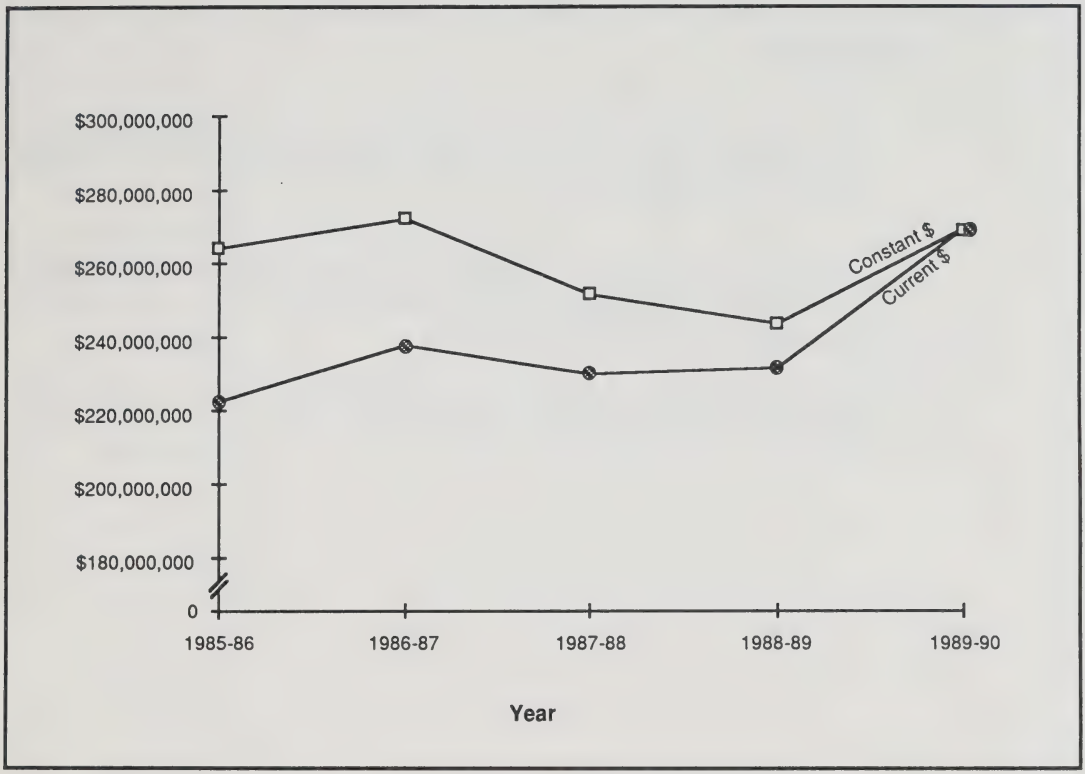
- In **current dollars,** the Total Maintenance expenditure increased by approximately $47 million (or 21.2%) over the five year period from 1985-86 to 1989-90.

- Expressed in **constant dollars,** the increase was approximately $5 million (or 1.8%) over the five year period from 1985-86 to 1989-90.

- The Total Maintenance expenditure can exceed allocations due to in-year redistribution of resources amongst Ministry programs and the variable costs of Winter Maintenance.

MAINTENANCE

• Total Maintenance Expenditure
(Current $ vs Constant $)



NOTE: Base year for Constant Dollars is 1989/90 - Figures have been rounded-off

	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$222,003,900	$237,692,900	$229,549,800	$231,490,600	$269,019,700
Constant Dollars	$264,184,641	$271,682,985	$251,586,581	$243,528,111	$269,019,700

SOURCE: Maintenance Branch, Public Accounts data excluding Employee Benefits

• General Maintenance Expenditure
(Current $ vs Constant $)

Highlights

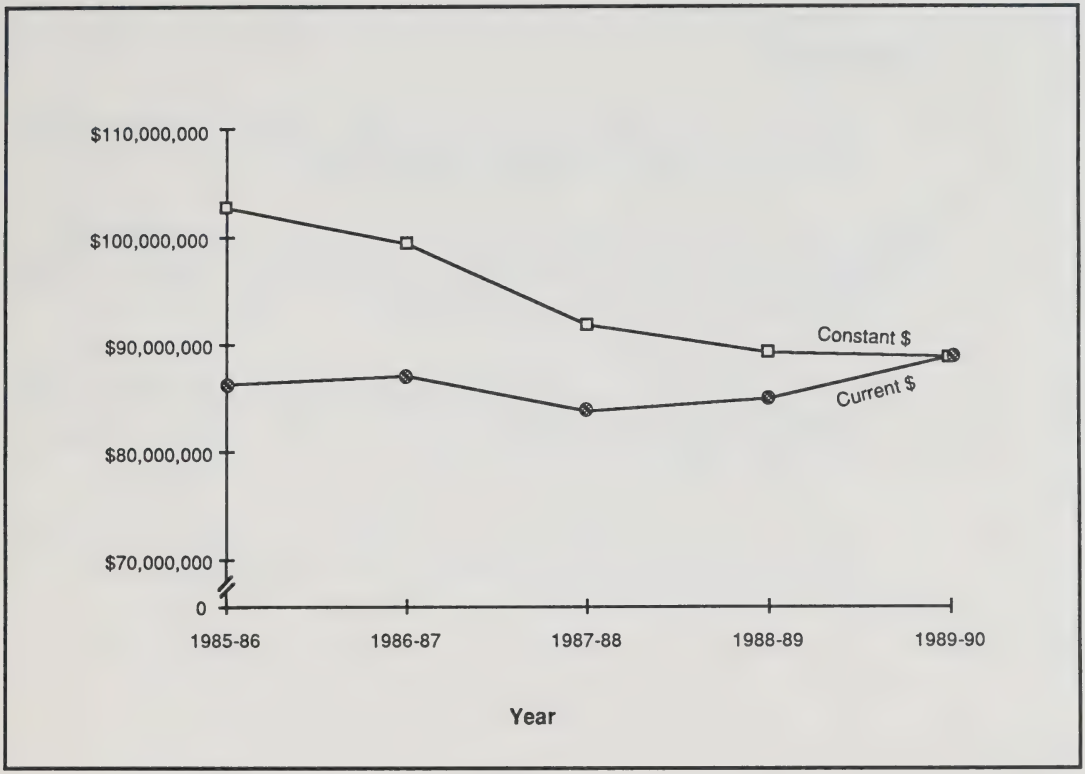
- In **current dollars,** General Maintenance expenditure increased by approximately $2.6 million (or 3%) over the five year period from 1985-86 to 1989-90.

- Expressed in **constant dollars,** there was actually a decrease in expenditure of approximately $13.8 million (or 13.5%) over the five year period from 1985-86 to 1989-90.

- General Maintenance expenditure constituted about 33% of the Total Maintenance expenditure for 1989-90.

MAINTENANCE

• General Maintenance Expenditure
(Current $ vs Constant $)



NOTE: Base year for Constant Dollars is 1989/90 - Figures have been rounded-off

	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$86,273,400	$86,937,300	$83,592,500	$84,802,100	$88,849,900
Constant Dollars	$102,665,346	$99,369,334	$91,617,380	$89,211,809	$88,849,900

SOURCE: Maintenance Branch, Public Accounts data excluding Employee Benefits

• Winter Maintenance Expenditure
(Current $ vs Constant $)

Highlights

- The level of Winter Maintenance expenditure is affected by the severity of the winter, as well as productivity improvements.

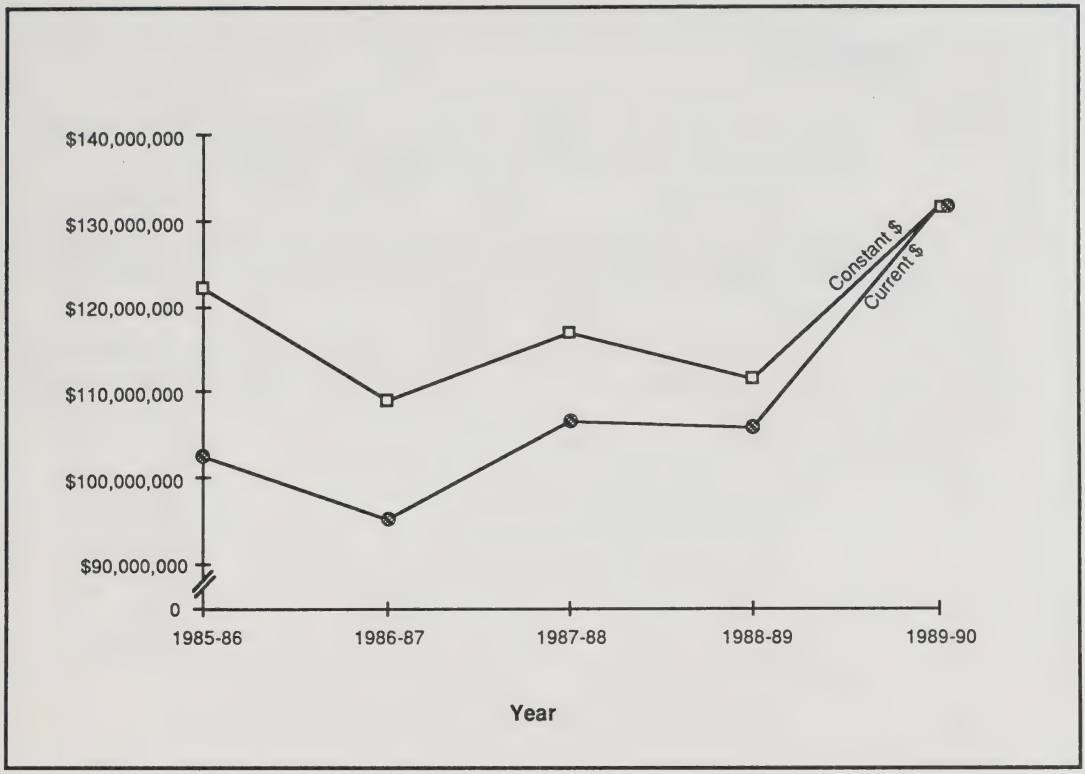
- Taken over the five year period from 1985-86 to 1989-90, the Winter Maintenance expenditure increased by approximately $28.8 million (or 28%) when expressed in **current dollars.**

- When expressed in **constant dollars,** the Winter Maintenance expenditure increased by $9.3 million (or 7.6%) from 1985-86 to 1989-90. It should be noted, however, that this does not reflect a consistent yearly increase.

- Winter Maintenance expenditure constituted from 40% to 50% of the Total Maintenance expenditure throughout the 5 year period.

MAINTENANCE

• Winter Maintenance Expenditure
(Current $ vs Constant $)



NOTE: Base year for Constant Dollars is 1989/90 - Figures have been rounded-off

	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$102,582,900	$95,157,700	$106,488,300	$105,766,810	$131,356,000
Constant Dollars	$122,073,651	$108,765,251	$116,711,177	$111,266,684	$131,356,000

SOURCE: Maintenance Branch, Public Accounts data excluding Employee Benefits

• Ferries Expenditure
(Current $ vs Constant $)

Highlights

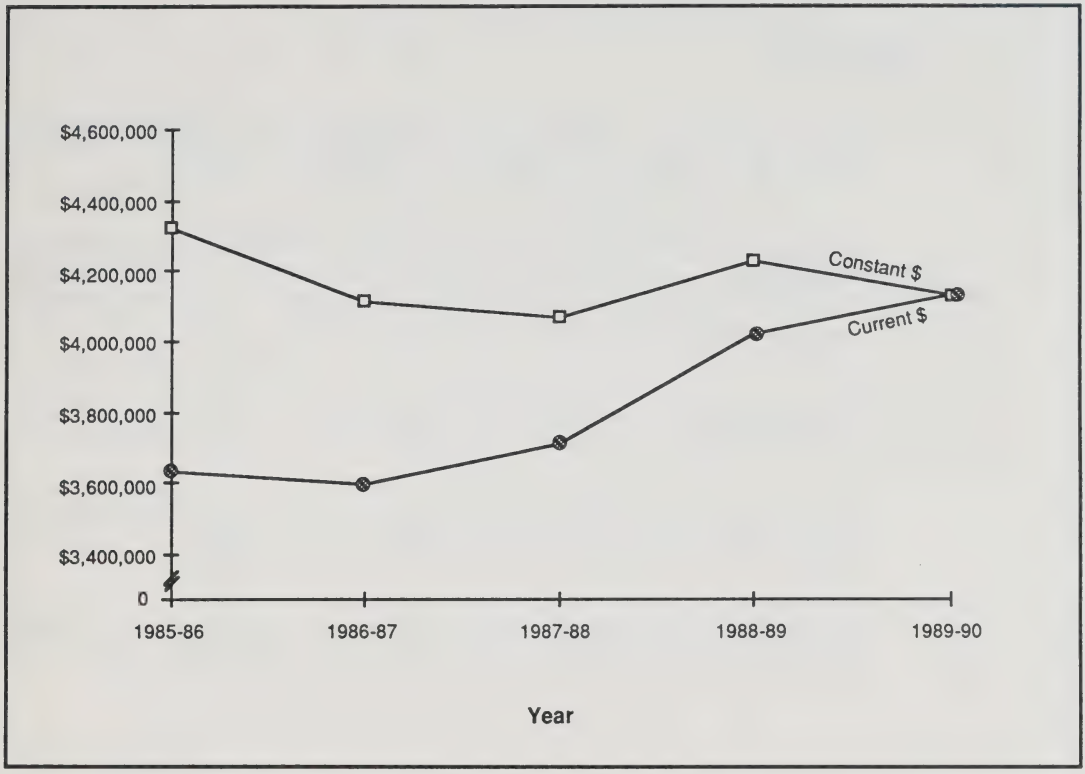
- In **current dollars,** Ferries expenditure increased by approximately $500 thousand (or 13.8%) from 1985-86 to 1989-90.

- Expressed in **constant dollars,** Ferries expenditure actually decreased by approximately 4.4% from 1985-86 to 1989-90.

- For each year from 1985-86 to 1989-90 the Ferries expenditure constituted approximately 1.5% to 1.7% of the Total Maintenance expenditure.

MAINTENANCE

• Ferries Expenditure
(Current $ vs Constant $)



NOTE: Base year for Constant Dollars is 1989/90 - Figures have been rounded-off

	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$3,629,000	$3,599,000	$3,708,400	$4,018,000	$4,129,500
Constant Dollars	$4,318,510	$4,113,657	$4,064,406	$4,226,936	$4,129,500

SOURCE: Maintenance Branch, Public Accounts data excluding Employee Benefits

• Maintenance Administration Expenditure
(Current $ vs Constant $)

Highlights

- In **current dollars,** Administration expenditures increased by approximately $2.4 million (or 10.9%) from 1985-86 to 1989-90.

- Expressed in **constant dollars,** Administration expenditures decreased by approximately $1.8 million (or 6.8%) from 1985-86 to 1989-90. However, it should be pointed out that this does not reflect a steady decrease throughout the period.

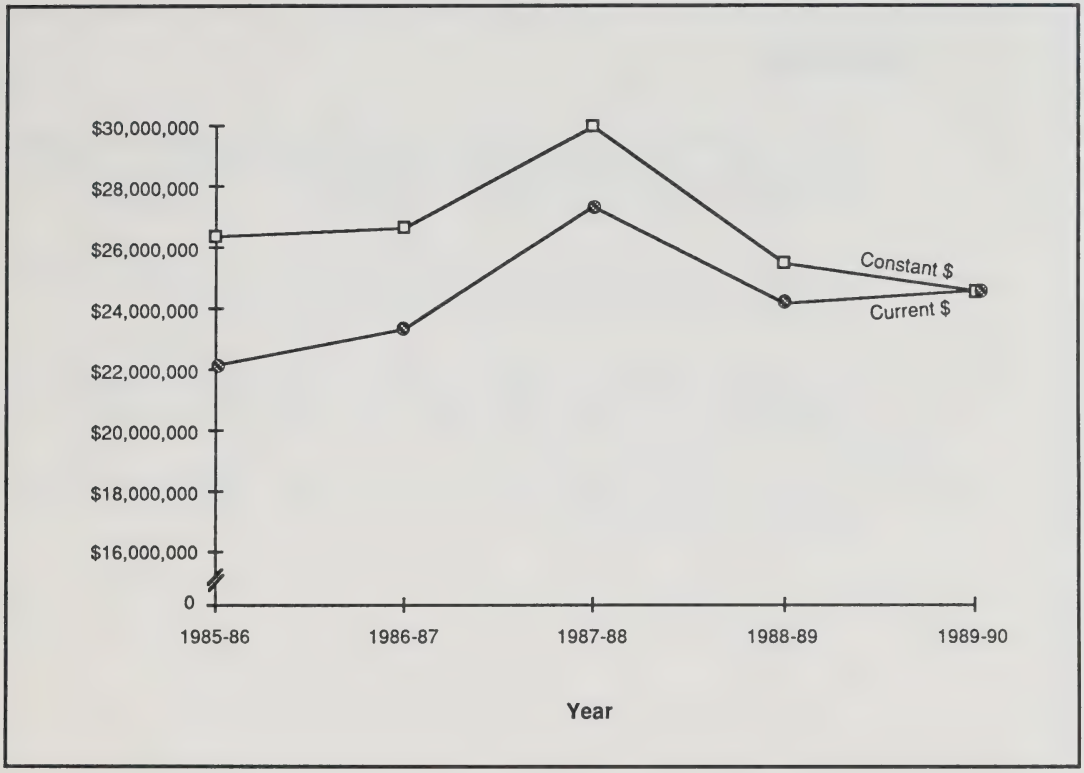
- The Administration expenditure constituted approximately 9.1% of the Total Maintenance expenditure in 1989-90.

- Administration expenditures rose between 1986-87 and 1987-88 due in a large part to the acquisition of the Government Garage.

- Administration includes: Highway Operations and Maintenance Head Office, Regional Maintenance Office and District Maintenance staff.

MAINTENANCE

• Maintenance Administration Expenditure
(Current $ vs Constant $)



NOTE: Base year for Constant Dollars is 1989/90 - Figures have been rounded-off

ADMINISTRATION includes: Highway Operations and Maintenance Head Office, Regional Maintenance Office, and District Maintenance Staff

	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$22,129,200	$23,308,000	$27,315,300	$24,174,000	$24,542,200
Constant Dollars	$26,333,748	$26,641,044	$29,937,569	$25,431,048	$24,542,200

SOURCE: Maintenance Branch, Public Accounts data excluding Employee Benefits

• Equipment Expenditure
(Current $ vs Constant $)

Highlights

- The exceptional increase in Equipment expenditure in 1986-87 was due to a one-time supplementary allocation awarded by Management Board to address the backlog of equipment acquisitions.

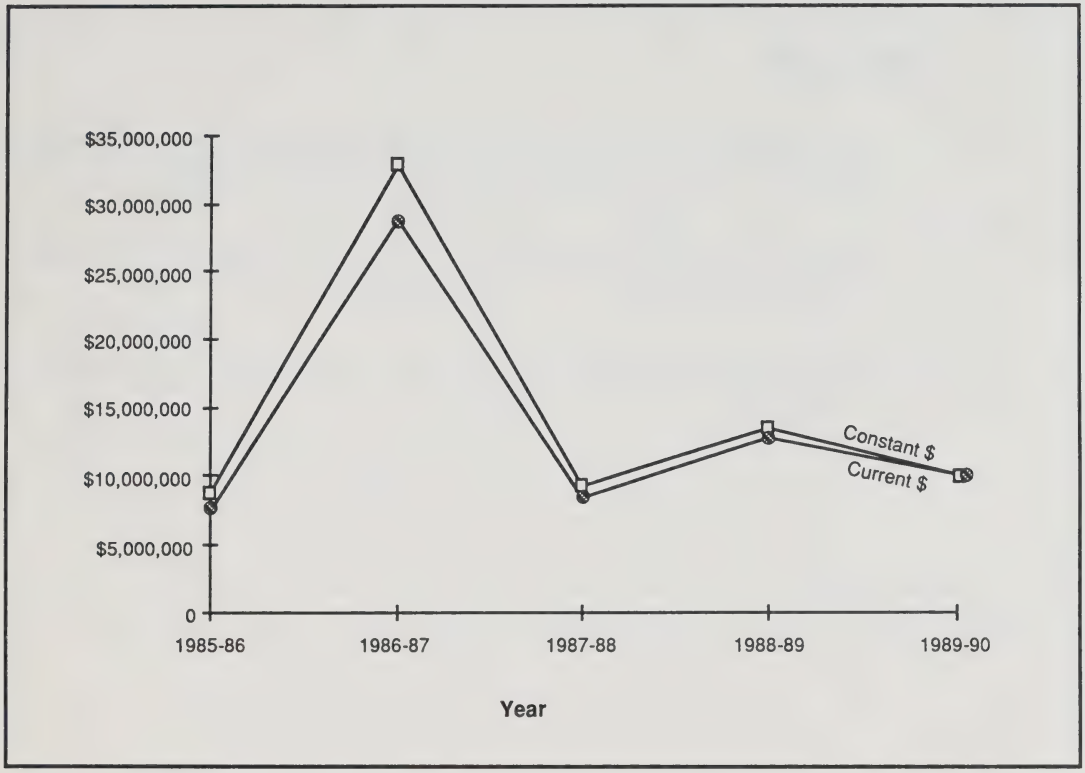
- Expenditures increased by approximately $2.8 million (or 37.3%) from 1985-86 to 1989-90, when expressed in **current dollars.**

- Expressed in **constant dollars,** Equipment expenditures increased by approximately $1.3 million (or 15.3%) from 1985-86 to 1989-90.

- In 1989-90 Equipment expenditure accounted for 3.8% of the Total Maintenance expenditure.

MAINTENANCE

• Equipment Expenditure
(Current $ vs Constant $)



NOTE: Base year for Constant Dollars is 1989/90 - Figures have been rounded-off

	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$7,389,400	$28,690,900	$8,445,300	$12,729,600	$10,142,100
Constant Dollars	$8,793,386	$32,793,699	$9,256,049	$13,391,539	$10,142,100

SOURCE: Maintenance Branch, Public Accounts data excluding Employee Benefits

• Salt and Sand Usage

Highlights

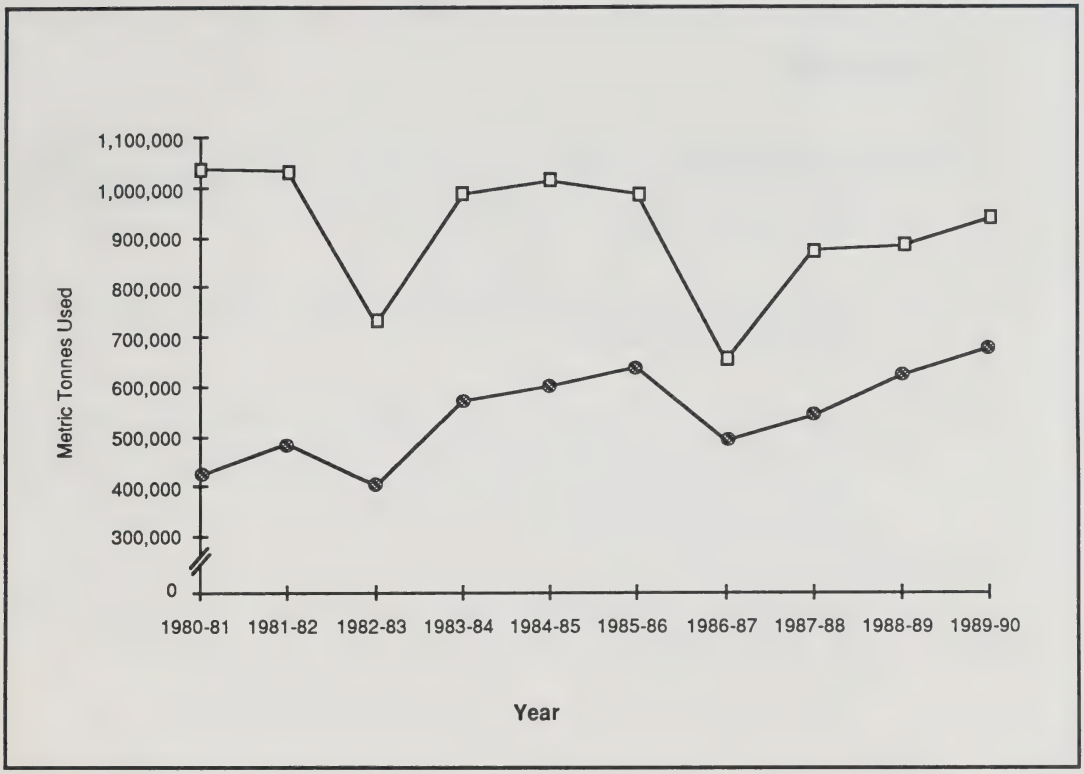
- Salt and Sand used for snow/ice removal fluctuate as winter conditions change (ie. warmer temperatures result in more salt usage).

- Taken over the ten year period from 1980-81 to 1989-90, salt usage increased by 60.3%.

- Sand usage decreased by 9.6% over the ten year period from 1980-81 to 1989-90.

MAINTENANCE

• Salt and Sand Usage



	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90
Salt	422,359	486,648	402,346	569,038	599,604	636,448	488,856	541,757	619,887	677,143
Sand	1,038,874	1,034,623	723,959	986,392	1,014,914	988,490	648,758	874,647	883,278	938,967

SOURCE: Maintenance Branch

• Legal Claims

Highlights

- The Ministry carries liability insurance and any claims made for alleged maintenance deficiencies are handled by the insurance carrier. Payments are made by the insurance company and not out of Ministry of Transportation funds.

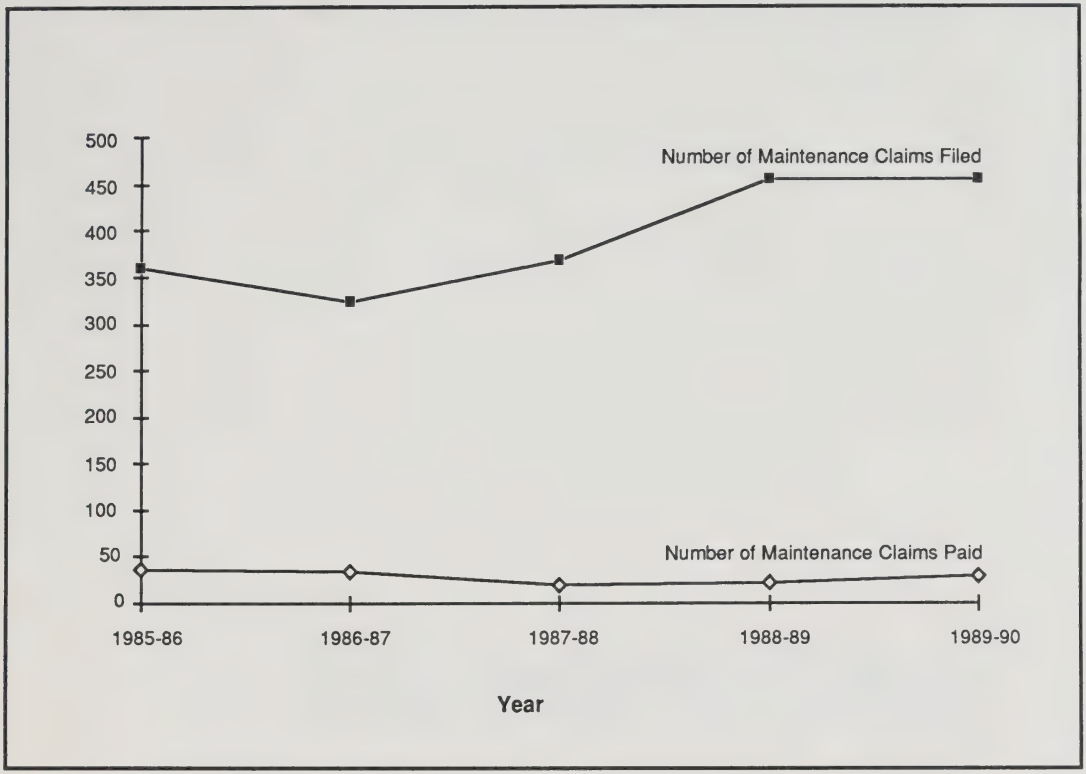
- The number of claims increased by 94 (or 26%) in the five year period from 1985-86 to 1989-90.

- The number of claims actually paid in 1989-90 was only about 6.6% of the number of claims filed for that year. Generally speaking, the claims paid in any given year are 10% or less of those filed, however, it should be emphasized that payments in a given year are not necessarily for claims made in that year.

- Claims settlement payments amounted to $113,422 in 1989-90, which was 47.4% less than the previous year.

MAINTENANCE

• Legal Claims

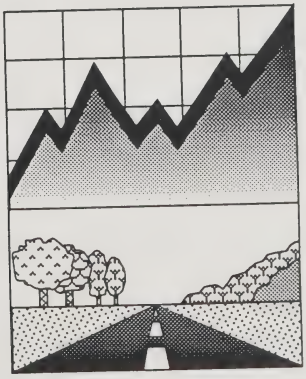


NOTE: Payments in a given year are not necessarily for claims made in that year. The majority of paid claims have gone through the courts.

	1985-86	1986-87	1987-88	1988-89	1989-90
Number Claims Filed	361	324	367	455	455
Number Claims Paid	37	34	19	22	30
Dollar Amount Paid	$356,900	$87,600	$81,400	$215,500	$113,422

SOURCE: Office of Legal Services - Claims Section

Infrastructure



• Kilometres of King's and Secondary Highways

Highlights

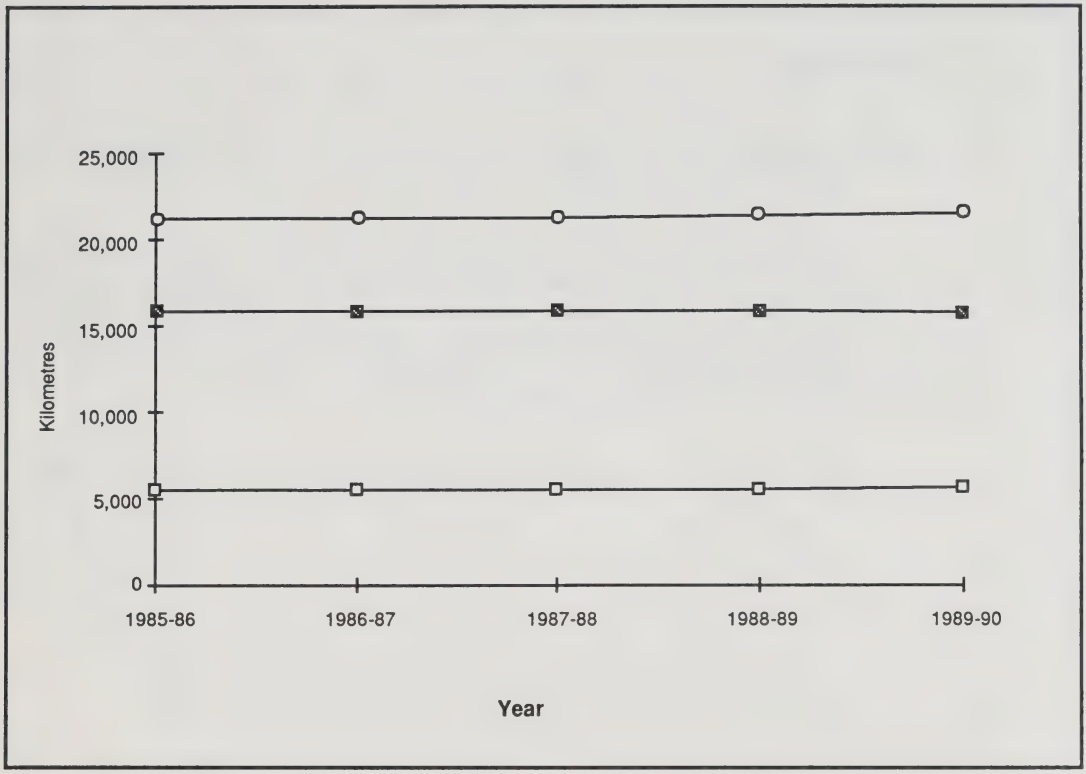
- **PLEASE NOTE:** Data used in this graph is from the Ministry's officialHighway Inventory System.

- Changes in the kilometres of King's highways and Secondary highways aregenerally the result of transfers and assumptions to the provincial highway system. Occasionally, changes will occur as a result of the reclassification of highways.

- There was an increase of 160 kilometres of highway in 1989-90 over the previous year. All of this increase occurred in Secondary Highways and part of the increase can be accounted for in the assumption of Highways 622 and 672.

INFRASTRUCTURE

• Kilometres of King's and Secondary Highways



LEGEND: King's
Secondary
Total

NOTE: Freeways are included in King's Highways

Type of Road	1985-86	1986-87	1987-88	1988-89	1989-90
King's Hwys	15,826	15,838	15,836	15,822	15,812
Secondary Hwys	5,434	5,432	5,433	5,501	5,671
Total	21,260	21,270	21,269	21,323	21,483

SOURCE: Transportation Capital Branch - Highway Planning Office

• Kilometres of Freeways

Highlights

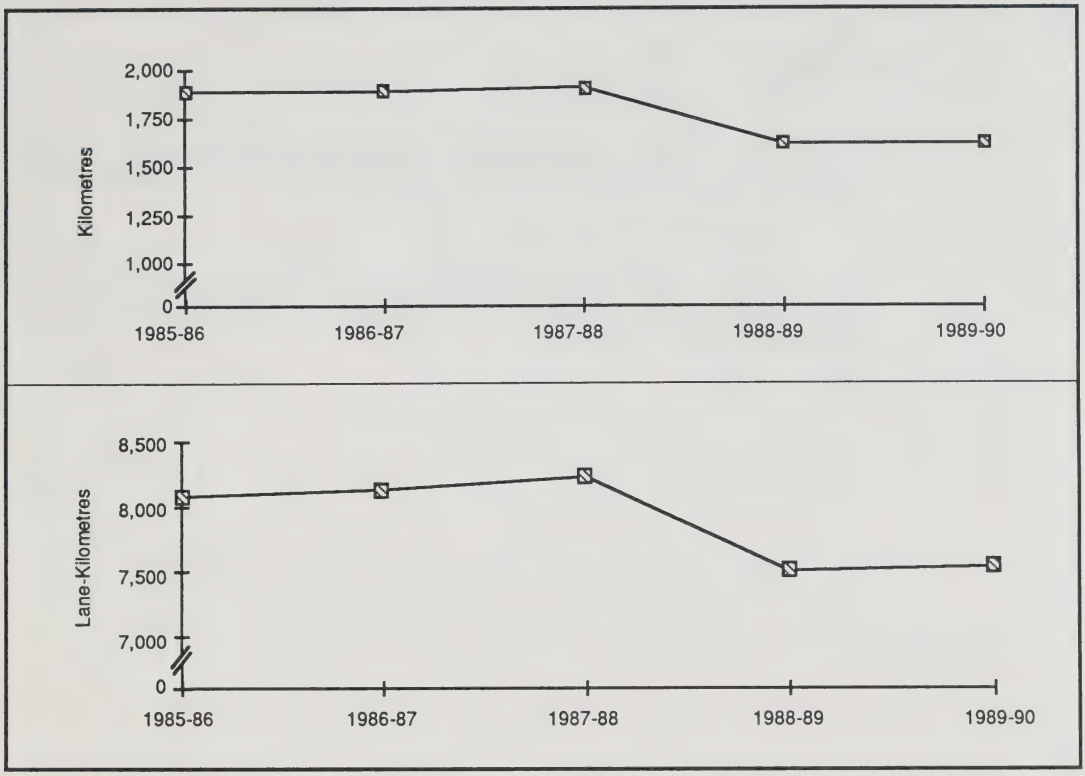
- **PLEASE NOTE:** Data used in this graph is from the Ministry's official Highway Inventory System.

- The apparent decrease in kilometres and lane-kilometres for 1988-89 was due to the review and subsequent alteration of highway classification codes. These codes were originally input into the highway inventory system about 5 years ago. At that time, these codes reflected access control more than functional classification, and depicted the future, not the present, function of the road.

- Kilometres and Lane-kilometres remained stable from 1988-89 to 1989-90.

INFRASTRUCTURE

• Kilometres of Freeways



NOTE: Freeways are King's highways and are indicated in King's highways statistics

	1985-86	1986-87	1987-88	1988-89	1989-90
Kilometres	1,893	1,893	1,912	1,618	1,617
Lane Kilometres	8,082	8,121	8,219	7,504	7,527

SOURCE: Transportation Capital Branch - Highway Planning Office

• Structures

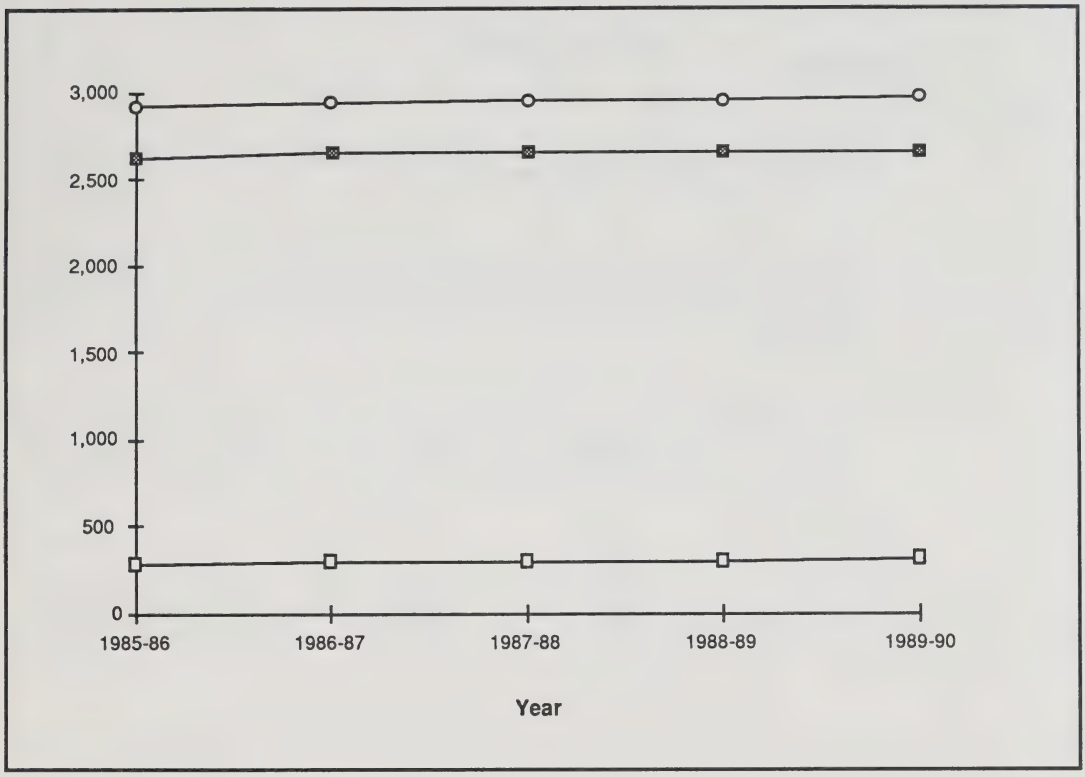
Highlights

- There was an increase of 23 structures over the one year period from 1988-89 to 1989-90. Of these, 19 were on Secondary highways and 4 were on King's highways.

- There was a total increase of 54 structures over the five year period from 1985- 86 to 1989-90. Of these, 21 were on Secondary highways and 33 were on King's highways.

INFRASTRUCTURE

• Structures



LEGEND: ▩ King's Hwys
□ Secondary Rds
○ Total

NOTE: Structures, as defined here, include bridges and culverts over 6 metres

Structures	1985-86	1986-87	1987-88	1988-89	1989-90
King's Hwys	2,629	2,648	2,655	2,658	2,662
Secondary Hwys	290	292	293	292	311
Total	2,919	2,940	2,948	2,950	2,973

SOURCE: Transportation Capital Branch - Highway Planning Office

• Railway Crossings

Highlights

- There were no changes in At-grade Railway crossings over the past year, that is, from 1988-89 to 1989-90.

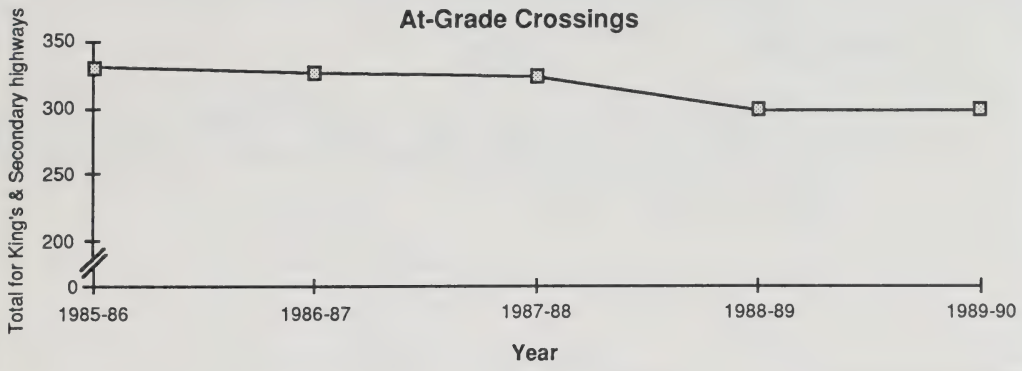
- The decrease of 26 At-grade Railway Crossings from 1987-88 to 1988-89 was mainly the result of Via Rail cuts, although some of these would have been previously abandoned railway lines that hadn't been torn up previously.

- The classification, *"staged freeways"*, has been eliminated from the Highway Inventory system. At-grade crossings that were previously identified as being on "staged freeways" are now included in the King's highways.

- Railway Grade-separations, i.e. Subways and Overheads, remained almost the same from 1986-87 to 1989-90. The slight changes which occurred are probably attributable to changes in highway classification.

INFRASTRUCTURE

• Railway Crossings



Railway Grade-Separations
(Subways & Overheads)

1986-87	1987-88	1988-89	1989-90
Freeways = 133	Freeways = 132	Freeways = 132	Freeways = 132
Other King's Hwys = 167	Other King's Hwys = 166	Other King's Hwys = 166	Other King's Hwys = 166
Secondary Roads = 6	Secondary Roads = 7	Secondary Roads = 7	Secondary Roads = 7
TOTAL = 306	TOTAL = 305	TOTAL = 305	TOTAL = 305

At-Grade Crossings	1985-86	1986-87	1987-88	1988-89	1989-90
King's Hwys	234	234	227	206	206
Secondary Hwys	97	93	97	92	92
Total	331	327	324	298	298

SOURCE: Transportation Capital Branch - Highway Planning Office

• Kilometres of Medians

Highlights

- Box Beam Guide Rail, Raised Steel Flex Beam and New Jersey Barriers are the most common **barrier** medians. A new type of median, *i.e. "Tall Wall",* was added in 1988.

INFRASTRUCTURE

• Kilometres of Medians

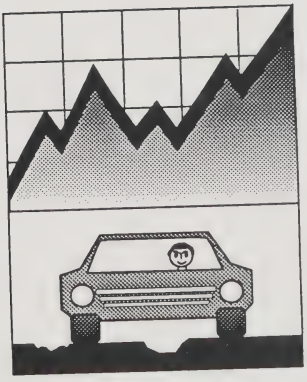
1989

MEDIAN TYPE	KILOMETRES
1. Grass Depressed	1,434.2
2. Raised, Steel Flex Beam	113.8
3. Raised, 6 Cable Guide Wire	12.7
4. Raised, Guide Rail with Anti-glare Screen	41.1
5. Box Beam Guide Rail	142.0
6. New Jersey Barrier	107.4
7. Barrier Curb or IBC	4.3
8. Painted	205.7
9. Singing-Strip	38.7
10. Tall Wall (High Mast Lighting)	1.9

KM of Median Barriers	1985	1986	1987	1988	1989
Type 2,3,4,5,6,7, & *10 *NOTE: #10 Tall Wall is a new type beginning in 1988	404	409.5	409.7	421.4	423.2

SOURCE: Transportation Capital Branch - Highway Planning Office

System Condition



• Now Deficiencies for Highways

Highlights

- Now Deficiencies on King's highways decreased by 20.9% over the past year, i.e. 1987-88 to 1988-89.

- The reverse was true for Secondary highways where Now Deficiencies increased by 50.7% from 1987-88 to 1988-89.

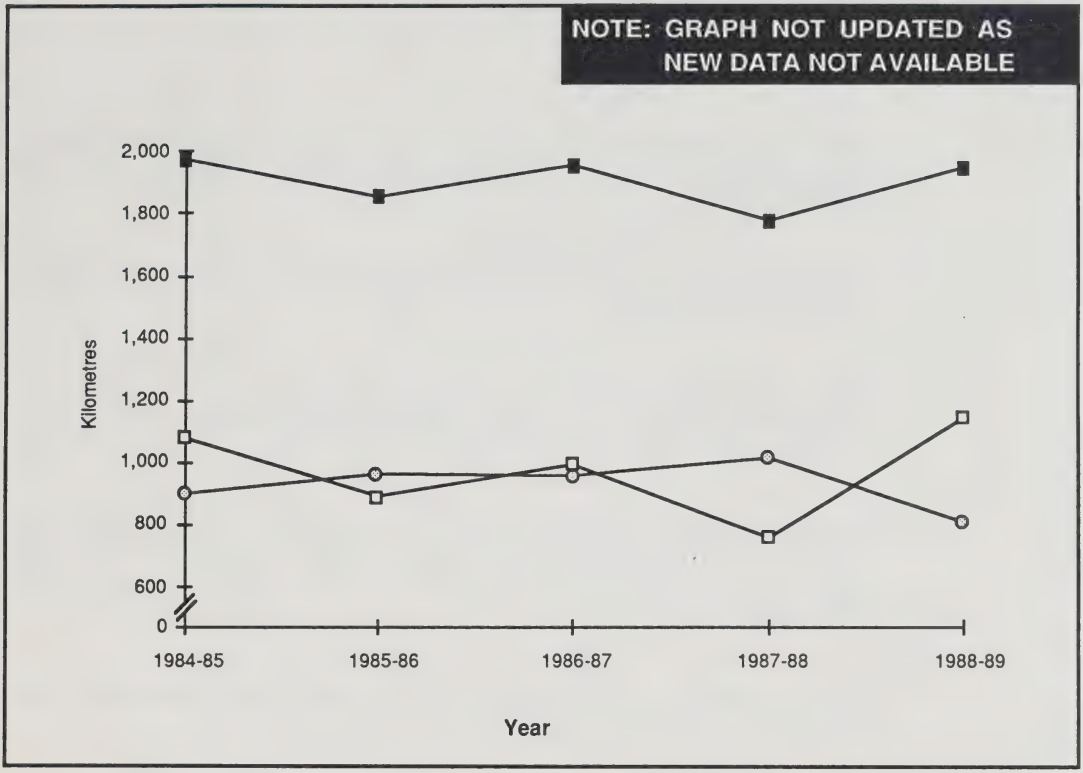
- Deficiencies are based on one or a combination of the following Minimum Tolerable Standards of the Desirable Jurisdiction: Surface Type, Surface Width, Average Safe Speed, Level-of-Service and Pavement Condition.

- Where a section of highway has more than one type of deficiency the length of that section is counted only once.

NOTE:
INFORMATION NOT UPDATED AS NEW DATA NOT AVAILABLE

SYSTEM CONDITION

• Now Deficiencies for Highways



LEGEND:
- ○ King's Hwys (includes Freeways)
- □ Secondary Hwys
- ■ Total

Now Deficiencies	1984-85	1985-86	1986-87	1987-88	1988-89
King's Hwys	899	964	959	1,016	804
Secondary Hwys	1,077	891	992	758	1,142
Total	1,976	1,855	1,951	1,774	1,946

SOURCE: Transportation Capital Branch - Highway Planning Office

• Short Term Deficiencies for Highways

Highlights

- Short Term Deficiencies (i.e. 1 to 5 years) on Provincial highways fluctuated from 1984-85 to 1988-89, but increased by 10.8% when taken over the five year period.

- Short Term Deficiencies on King's highways increased by 32.1% from 1984-85 to 1988-89.

- Short Term Deficiencies on Secondary highways showed a decline of 33.7% from 1984-85 to 1988-89. The apparent reduction in Secondary highway deficiencies is due in part to revised design guidelines.

- Deficiencies are based on one or a combination of the following Minimum Tolerable Standards of the Desirable Jurisdiction: Surface Type, Surface Width, Average Safe Speed, Level-of-Service and Pavement Condition.

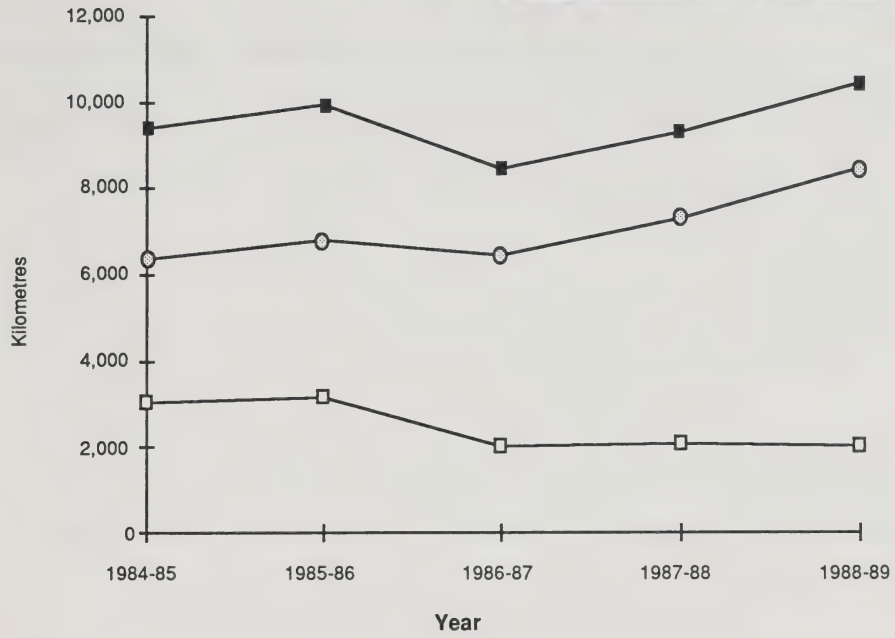
- Where a section of highway has more than one type of deficiency the length of that section is counted only once.

NOTE:
INFORMATION NOT UPDATED AS NEW DATA NOT AVAILABLE

SYSTEM CONDITION

• Short Term Deficiencies for Highways

NOTE: GRAPH NOT UPDATED AS NEW DATA NOT AVAILABLE



LEGEND:
- ○ King's Hwys (includes Freeways)
- □ Secondary Hwys
- ■ Total

Short Term Deficiencies	1984-85	1985-86	1986-87	1987-88	1988-89
King's Hwys	6,341	6,774	6,387	7,240	8,379
Secondary Hwys	3,042	3,148	2,017	2,045	2,017
Total	9,383	9,922	8,404	9,285	10,396

SOURCE: Transportation Capital Branch - Highway Planning Office

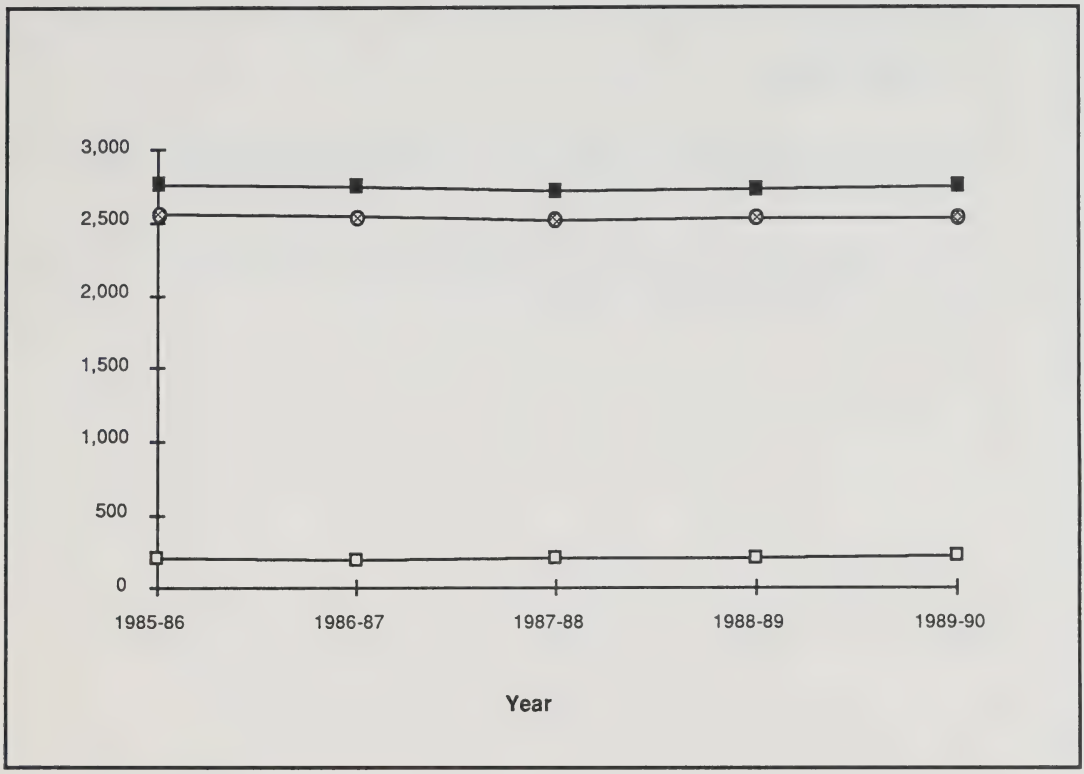
• Number of Adequate Structures
(Excluding Deck Deficiencies)

Highlights

- The adequacy levels for structures has remained fairly stable throughout the five year period.

SYSTEM CONDITION

• Number of Adequate Structures
(Excluding Deck Deficiencies)



LEGEND:
- King's Hwys (includes Freeways)
- Secondary Hwys
- Total

Adequate Structures	1985-86	1986-87	1987-88	1988-89	1989-90
King's Hwys	2,555	2,550	2,518	2,523	2,525
Secondary Hwys	206	191	197	203	213
Total	2,761	2,741	2,715	2,726	2,738

SOURCE: Transportation Capital Branch - Highway Planning Office

• Percentage of Adequate Structures

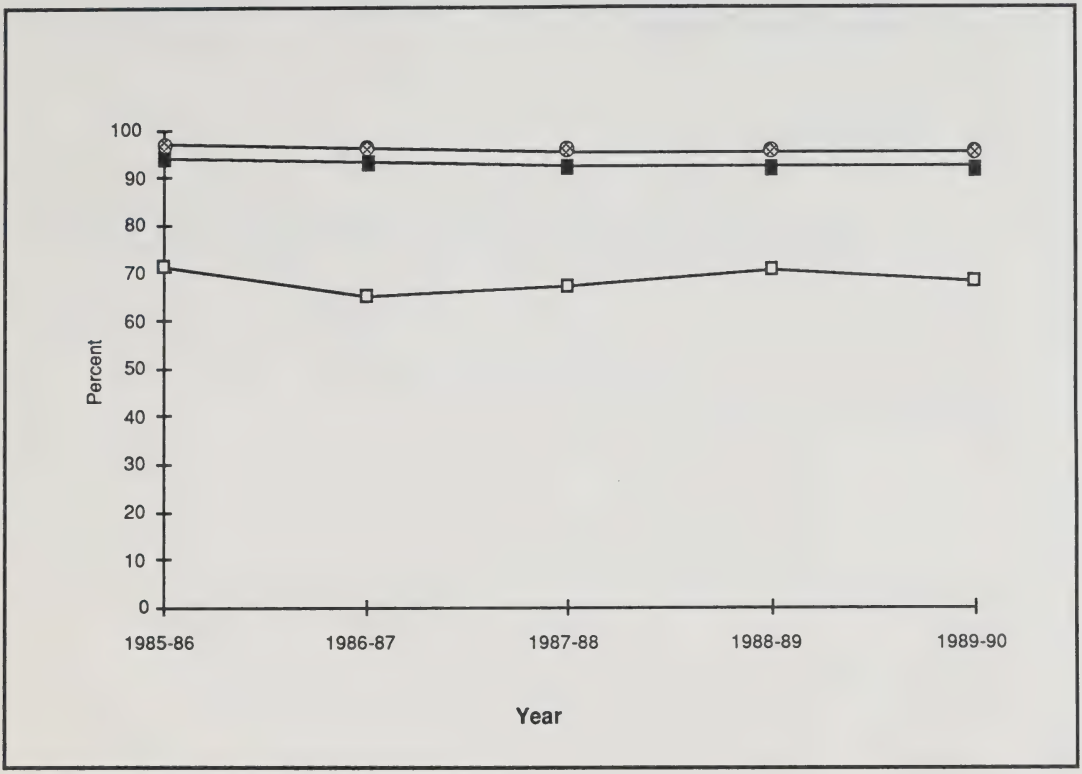
Highlights

- The percentage of adequate structures remained relatively consistent throughout the five year period from 1985-86 to 1989-90.

- The Adequacy Rate is the Total Number of Structures less Now Deficiencies as a percentage of the System.

SYSTEM CONDITION

• Percentage of Adequate Structures



LEGEND:
- ⊗ King's Hwys
- □ Secondary Hwys
- ■ Total

% Adequate Structures	1985-86	1986-87	1987-88	1988-89	1989-90
King's Hwys	97	96	95	95	95
Secondary Hwys	71	65	67	70	68
Total	94	93	92	92	92

SOURCE: Transportation Capital Branch - Highway Planning Office

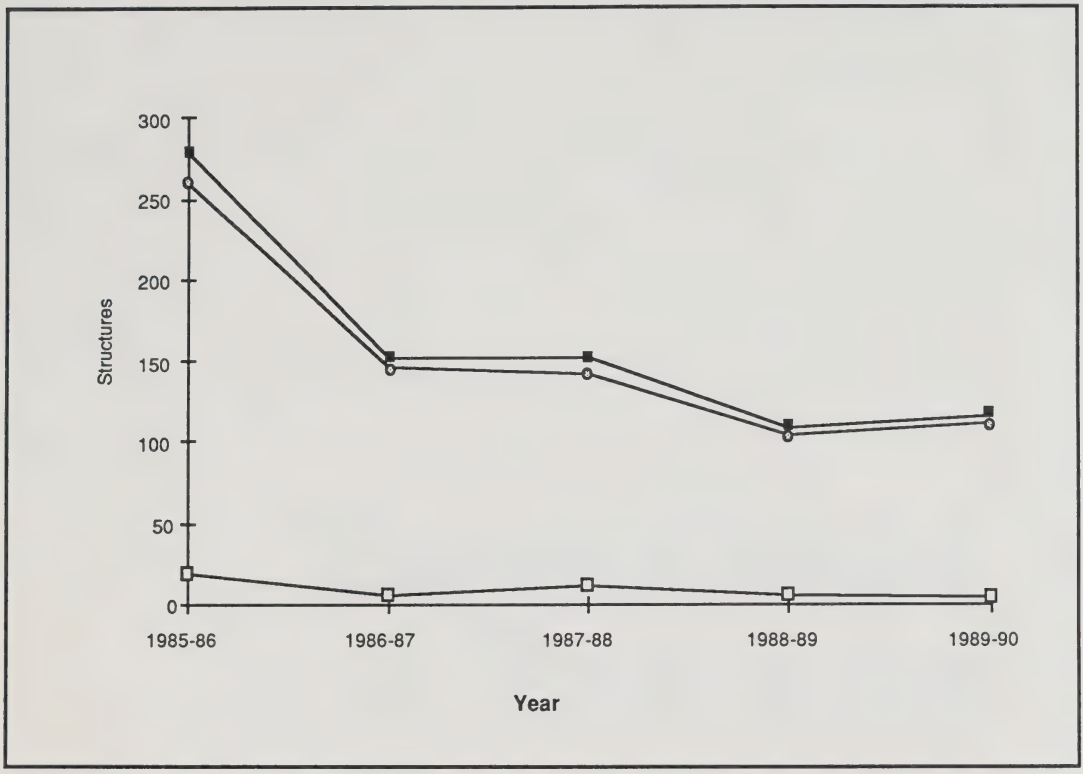
• Structure Rehab Deck Condition Deficiencies (Now Time Period)

Highlights

- Deck Condition Deficiencies continued to improve because of the greater emphasis placed on deck rehabilitation in the construction program.

SYSTEM CONDITION

• Structure Rehabilitation Deck Condition Deficiencies
(Now Time Period)

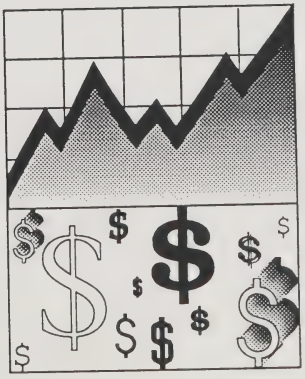


LEGEND:
- King's Hwys
- Secondary Hwys
- Total

Type of Road	1985-86	1986-87	1987-88	1988-89	1989-90
King's Hwys	259	146	141	103	111
Secondary Hwys	19	6	11	5	4
Total	278	152	152	108	115

SOURCE: Transportation Capital Branch - Highway Planning Office

Expenditures & Revenues



• Program Expenditures
(Current $ vs Constant $)

Highlights

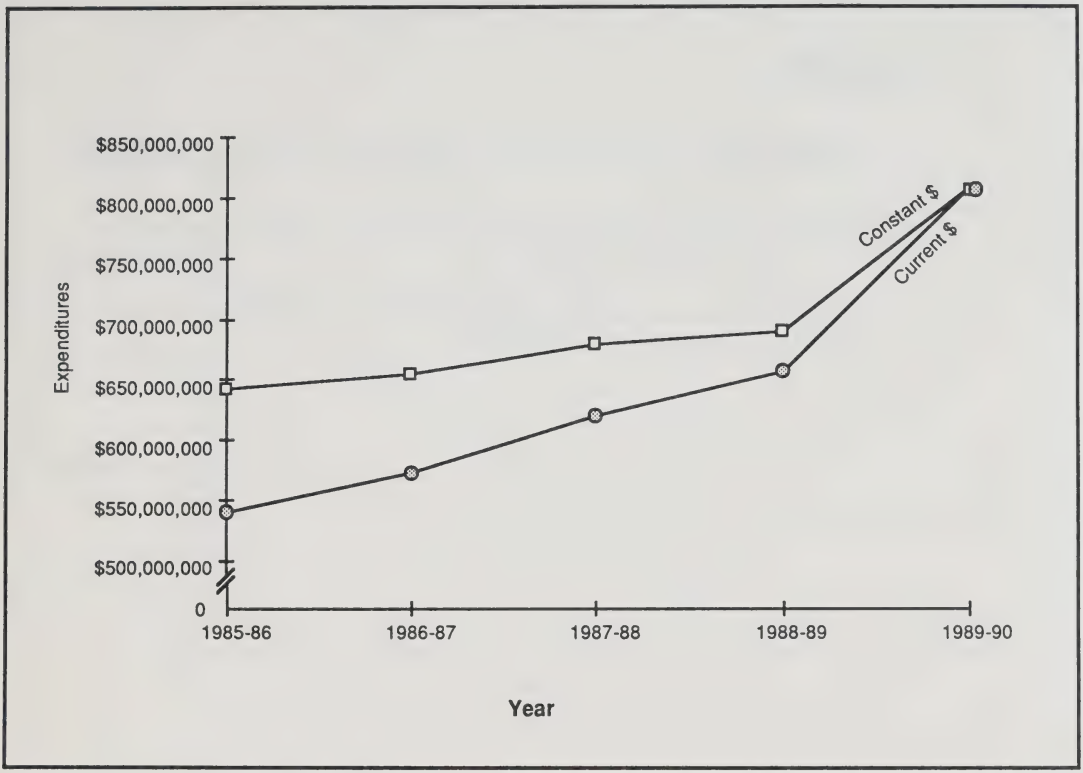
- Expressed in **current dollars,** the Program expenditures increased by approximately $266 million (or 49.2%) from 1985-86 to 1989-90. The bulk of this increase occurred in 1989-90 as Program expenditures increased by approximately $151 million due to the infusion of monies for the Transportation Capital Program.

- Expressed in **constant dollars,** the Program expenditures increased by approximately $163 million (or 25.4%) from 1985-86 to 1989-90.

EXPENDITURES & REVENUES

• Program Expenditures

(Current $ vs Constant $)



NOTE: Constant Dollars are expressed in 1989-90 Dollars

Program Expenditures	1985-86	1986-87	1987-88	1988-89	1989-90
Current Dollars	$540,148,967	$572,626,201	$619,432,179	$655,297,850	$806,080,803
Constant Dollars	$642,777,271	$654,511,748	$678,897,668	$689,373,338	$806,080,803

SOURCE: Financial Planning & Administration Br. - Public Accounts (1985/86 - 1989/90 Vol. 1)

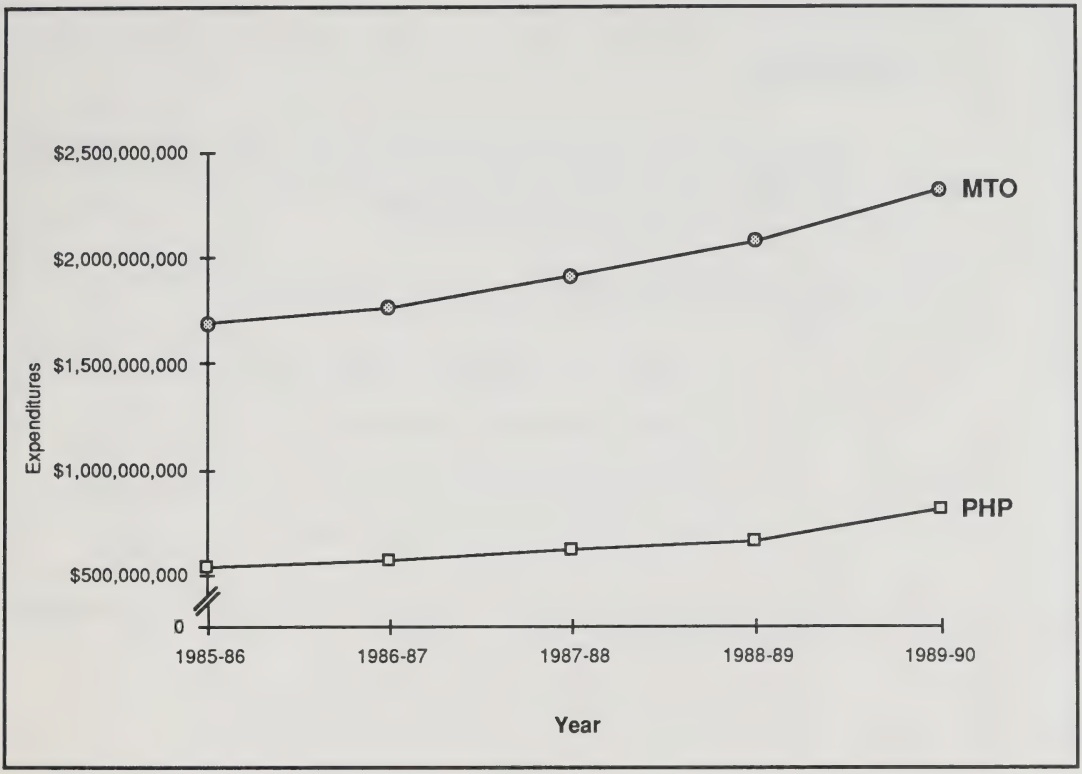
• Ministry of Transportation Expenditures vs Provincial Highways Program Expenditures

Highlights

- Ministry expenditures increased by 37% from 1985-86 to 1989-90.
- PHP expenditures increased by 49.2% from 1985-86 to 1989-90.
- The Program's expenditure was equal to approximately 35% of the Ministry's expenditure in 1989-90.

EXPENDITURES & REVENUES

• Ministry of Transportation Expenditures vs Provincial Highways Program Expenditures



NOTE: Figures are in Current Dollars
Provincial Highway Program figures DO NOT include MND&M

	1985-86	1986-87	1987-88	1988-89	1989-90
MTO	$1,691,738,592	$1,764,459,457	$1,913,973,693	$2,067,165,235	$2,318,725,270
PHP	$540,148,967	$572,626,201	$619,432,179	$655,297,850	$806,080,803

SOURCE: Financial Planning & Administration Br. - Public Accounts (1985/86 - 1989/90 Vol. 1)

• Expenditures by Sub-Program

Highlights

- Capital and Construction Expenditures were less than those for Maintenance from 1985-86 to 1986-87 but surpassed Maintenance in the following years (1987-88 to 1989-90).

- The five year trends (1985-86 to 1989-90) for expenditures were as follows:

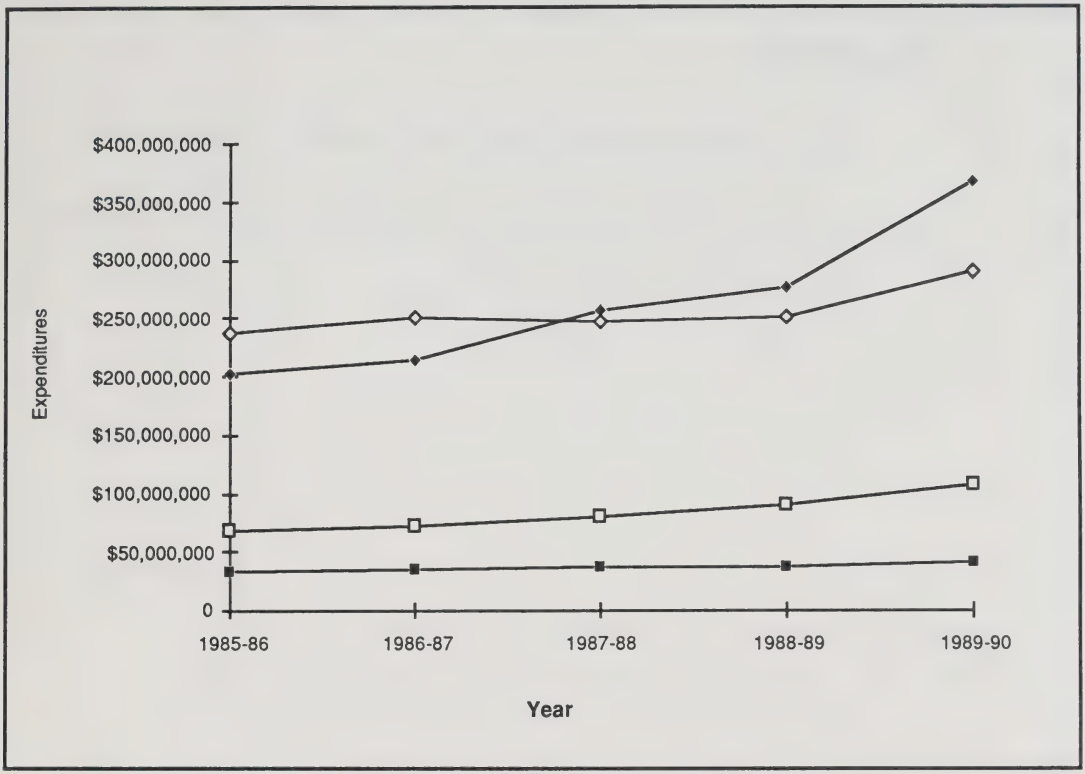
  - Administration expenditure increased by 25.9%
  - Design expenditure increased by 55.7%
  - Capital & Construction expenditure increased by 82%
  - Maintenance expenditure increased by 22.6%

- The Sub-program percentages of the Total Expenditure for the Program in 1989-90 were as follows:

  - Administration = 5.1%
  - Design = 13.3%
  - Capital & Construction = 45.6%
  - Maintenance = 36%

EXPENDITURES & REVENUES

• Expenditures by Sub-Program



LEGEND:
- ■ Administration
- □ Design
- ◆ Capital & Construction
- ◇ Maintenance

NOTE: Figures are in Current Dollars
Figures do not include: MND&M, Contract Security Deposits, Construction Deposits and Trust Accounts

IMPORTANT: Sub-program totals include Employee Benefits and are therefore slightly higher than the toals indicated in the Maintenance section of this document

Sub-Program	1985-86	1986-87	1987-88	1988-89	1989-90
Administration	$32,889,543	$34,701,484	$36,831,752	$37,681,222	$41,401,735
Design	$68,714,201	$72,143,991	$79,005,548	$90,115,239	$106,962,838
Capital & Construction	$201,974,611	$214,682,774	$257,299,695	$277,001,748	$367,608,115
Maintenance	$236,570,612	$251,097,952	$246,295,184	$250,499,641	$290,108,115

SOURCE: Financial Planning & Administration Br. - Public Accounts (1985/86 - 1989/90 Vol. 1)

• Statement of Budgetary Revenues
(Ministry of Transportation Fees, Licenses & Permits)

Highlights

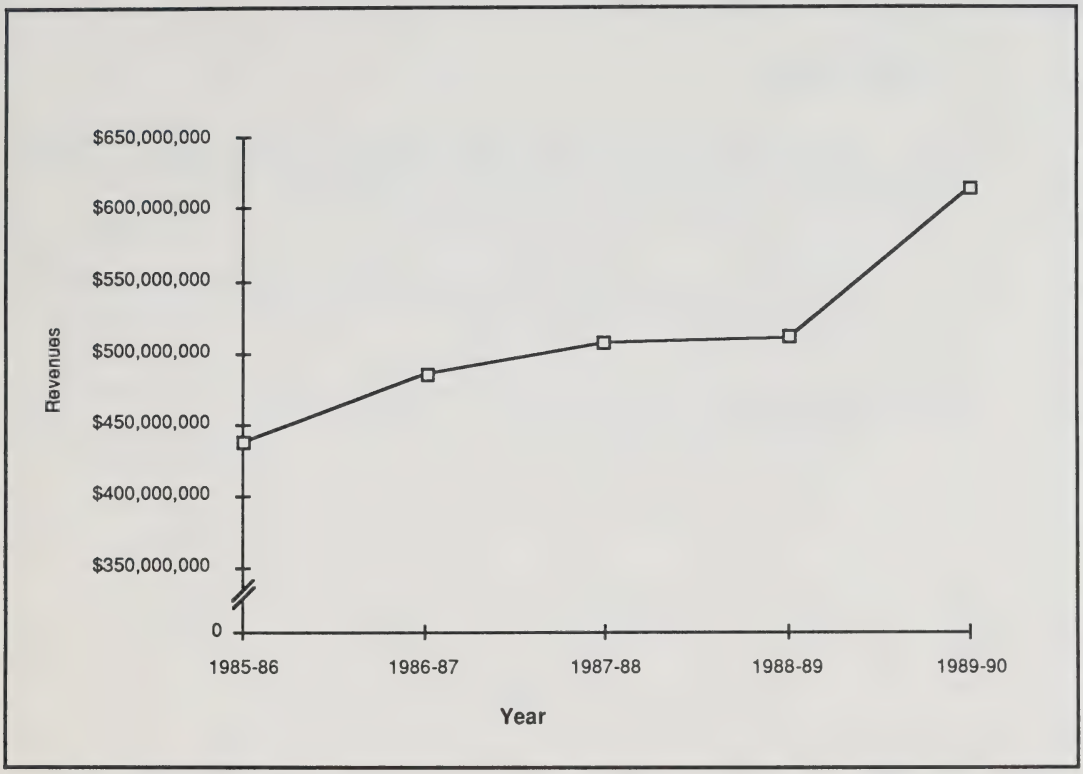
- Revenues have increased steadily over the past five years.

- During the five year period from 1985-86 to 1989-90, Revenues increased by approximately $176.9 million (or 40.5%).

EXPENDITURES & REVENUES

• Statement of Budgetary Revenues

(Ministry of Transportation Fees, Licenses & Permits)



NOTE: Includes revenues from vehicle licenses & transfers, driver licenses & examination fees, common carriers & other fees & permits, as detailed in Public Accounts

	1985-86	1986-87	1987-88	1988-89	1989-90
Fee Revenues	$437,441,449	$484,507,315	$507,200,482	$510,102,362	$614,390,988

SOURCE: Public Accounts (1985/86 - 1989/90 Vol. 1)

• Construction & Maintenance Expenditures per Kilometre of Highway System

Highlights

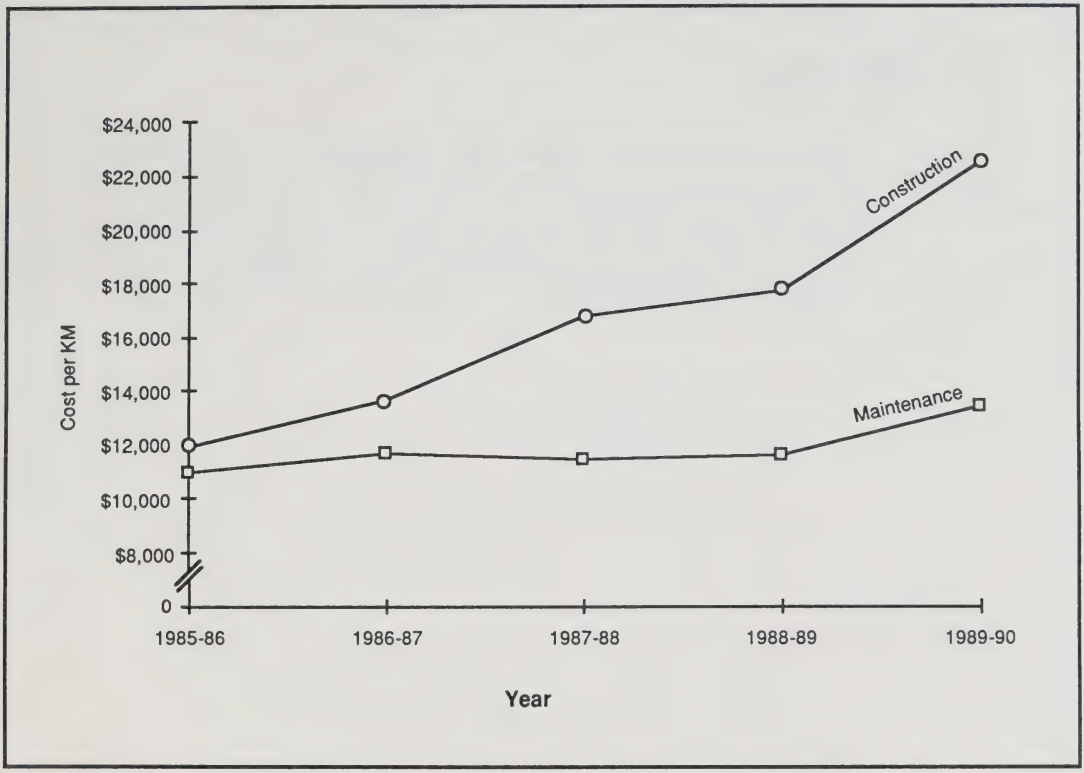
- Money spent for maintaining roads remained fairly constant during the three year period from 1986-87 to 1988-89, then increased by $1,773 per km of highway system (or 15.3%) in 1989-90.

- Over the five year period from 1985-86 to 1989-90, Maintenance expenditures per km of highway system rose by $2,393 (or 21.8%).

- Over the same five year period, Construction expenditures per km rose by $10,570 (or 88.9%).

EXPENDITURES & REVENUES

• Construction & Maintenance Expenditures per Kilometre of Highway System



NOTE: Figures are in Current Dollars

Type of Expenditure	1985-86	1986-87	1987-88	1988-89	1989-90
Construction	$11,887	$13,651	$16,752	$17,712	$22,457
Maintenance	$10,968	$11,654	$11,429	$11,588	$13,361

SOURCE: Financial Planning & Administration Br. - Budgetary Planning and Control

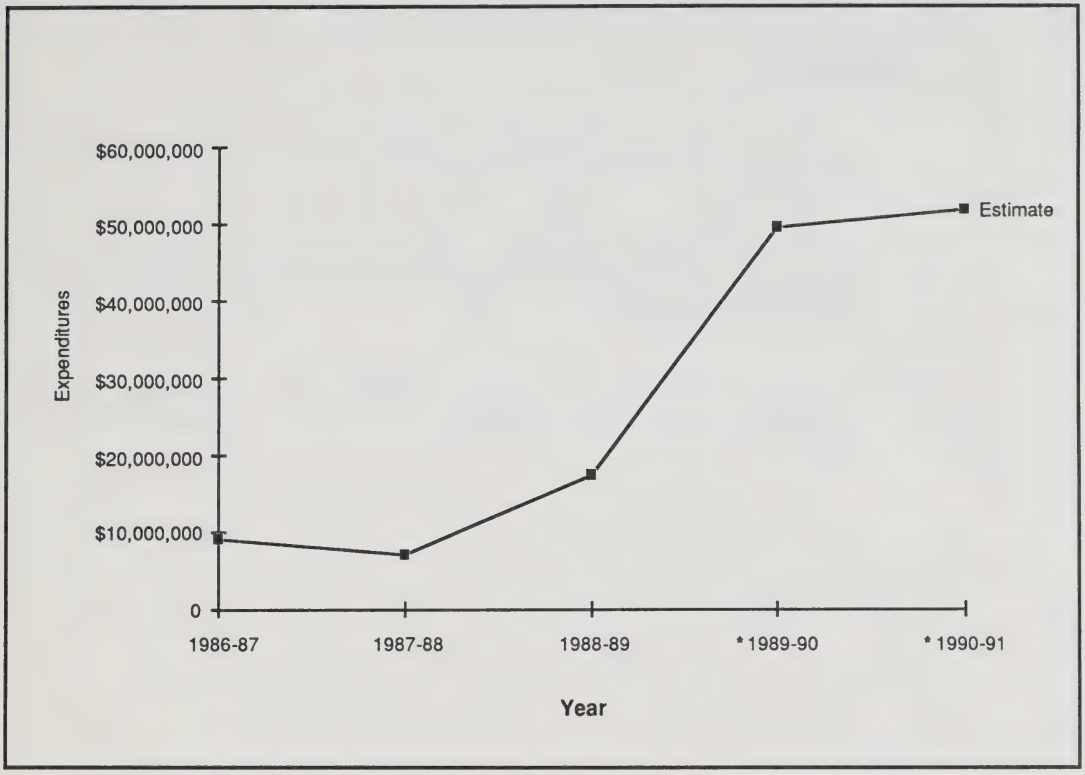
• Expenditures for Property Acquisitions

Highlights

- The marked increase in expenditures beginning in 1989-90 arises from both the growth of the Transportation Capital Program and a change in budgeting practice. Prior to 1989-90, MGS bought and paid for all lands in the Parkway Belt. Starting 1989-90, MTO paid for MGS' purchase of land for highway 407 in the Parkway Belt. MTO's expenditures in 1989-90 and 1990-91 were $16.5 million and $9.7 million respectively.

EXPENDITURES & REVENUES

• Expenditures for Property Acquisitions



NOTE: Property Expenditures are in Current Dollars

: * Expenditure for 1989-90 includes $16.5 million provided to MGS for Hwy 407 Parkway Belt acquisition.

: * Expenditure for 1990-91 includes $9.7 million provided to MGS for Hwy 407 Parkway Belt acquisition.

	1986-87	1987-88	1988-89	1989-90	1990-91
Expenditures	$9,202,537	$6,913,550	$17,429,152	*$49,492,200	*$51,900,000 (Estimate)
# of Acquisitions	528	411	482	502	530 (Estimate)

SOURCE: Property Office

• Revenues from Property Rentals and Sales

Highlights

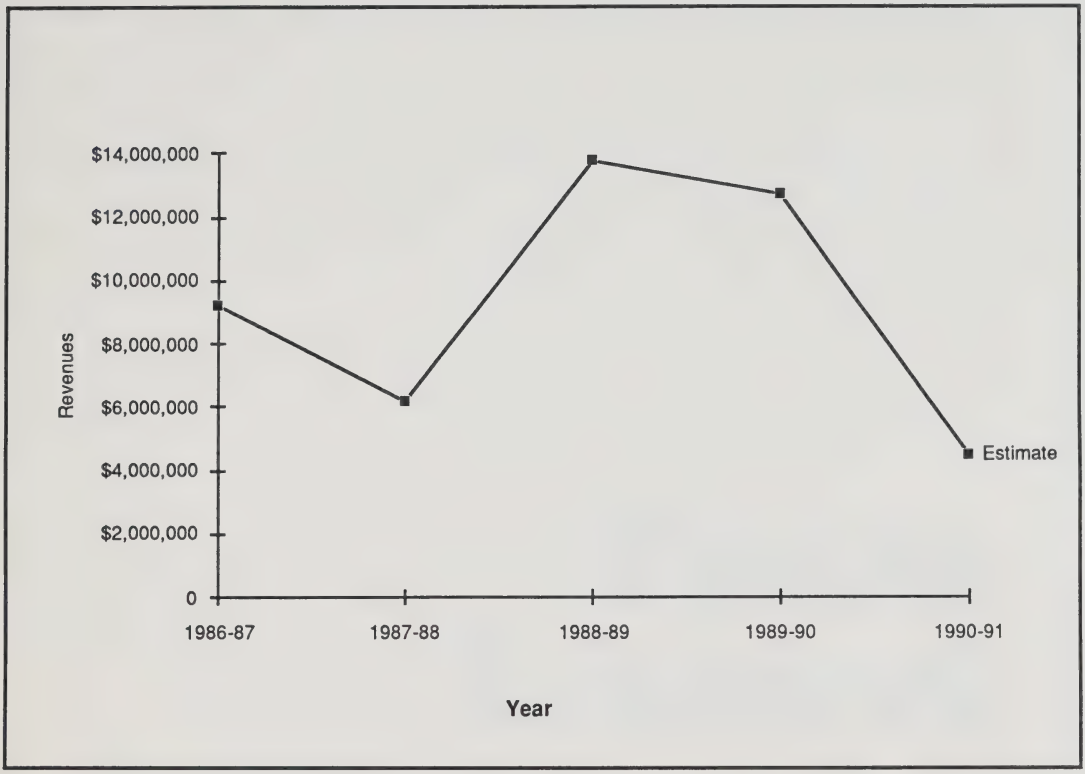
- In 1990-91 revenue decreased by $8.2 million (or 64.6%) from the previous year.

- Revenue in 1990-91 fell relative to the previous two years because the sale of two high value properties were delayed in the interest of other government objectives.

- Number of sales were down largely because of the concentration of staff resources to acquire new property for the provincial highway construction program.

EXPENDITURES & REVENUES

• Revenues from Property Rentals and Sales

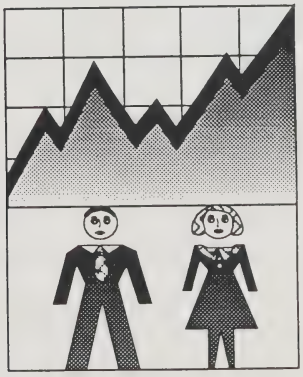


NOTE: Revenues from Property Rentals and Sales are in Current Dollars

	1986-87	1987-88	1988-89	1989-90	1990-91
Revenue	$9,200,926	$6,135,633	$13,764,588	$12,719,461	$4,500,000 (Estimate)
# of Rental Agreements	412	420	492	434	442 (Estimate)
# of Sales	284	238	242	228	140 (Estimate)

SOURCE: Property Office

Human Resources



• Program Staffing Levels

Highlights

- Over the past year (1989-90 to 1990-91) the following staffing changes occurred:

Administration	- decreased by	1 (remained stable)
Research & Design	- decreased by	12 (less than 1%)
Capital & Construction	- increased by	64 (6.5%)
Maintenance	- increased by	98 (2.5%)
Program Total	- increased by	149 (2.1%)

  This increase runs counter to the anticipated downward trend but is artificial in the long term since it can generally be accounted for by the Transportation Capital Program (TCP). In support of its projects, the TCP received special permission from Management Board to convert DOE to Salaries and Wages. A total of $14 million was allowed for this purpose. In 1990-91, $6.8 million was allowed for conversion and in 1991-92, $7 million more is available for conversion.

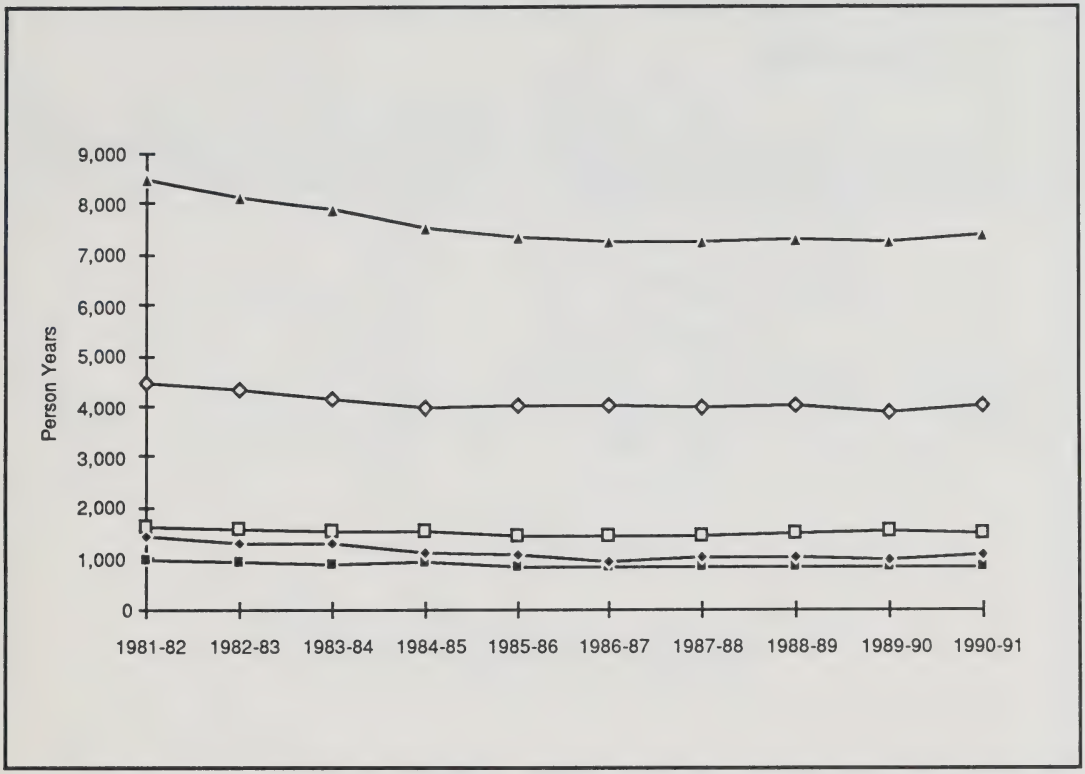
- Over the ten year period from 1981-82 to 1990-91, staffing levels decreased for the total Program by approximately 1,150 (or 13.5%).

- While there were minor fluctuations within sub-programs, the overall changes from 1981-82 to 1990-91 were as follows:

Administration	- decreased by 16.3%
Research & Design	- decreased by 7.2%
Capital & Construction	- decreased by 27.1%
Maintenance	- decreased by 10.9%

HUMAN RESOURCES

• Program Staffing Levels



LEGEND:
- ■ Administration
- □ Research & Design
- ♦ Capital & Construction
- ◇ Maintenance
- ▲ TOTAL

NOTE: Figures are approved estimates for Annual Budget submissions. Figures are for all types of Staff, i.e. Classified, Unclassified, Seasonal, Temporary, Permanent Part-time, Students, Etc.

	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Administration	971	942	893	916	807	819	810	818	814	813
Research & Design	1,621	1,569	1,523	1,511	1,439	1,450	1,443	1,463	1,516	1,504
Capital & Const.	1,438	1,292	1,290	1,118	1,077	944	1,038	1,006	985	1,049
Maintenance	4,468	4,315	4,150	3,976	3,986	4,013	3,944	3,979	3,884	3,982
PROGRAM TOTAL	8,498	8,118	7,856	7,521	7,309	7,226	7,235	7,266	7,199	7,348

SOURCE: Financial Planning & Administration Br. - Budgetary Planning & Control

• Program Staffing: H.O./Regional Dist. 1990-91

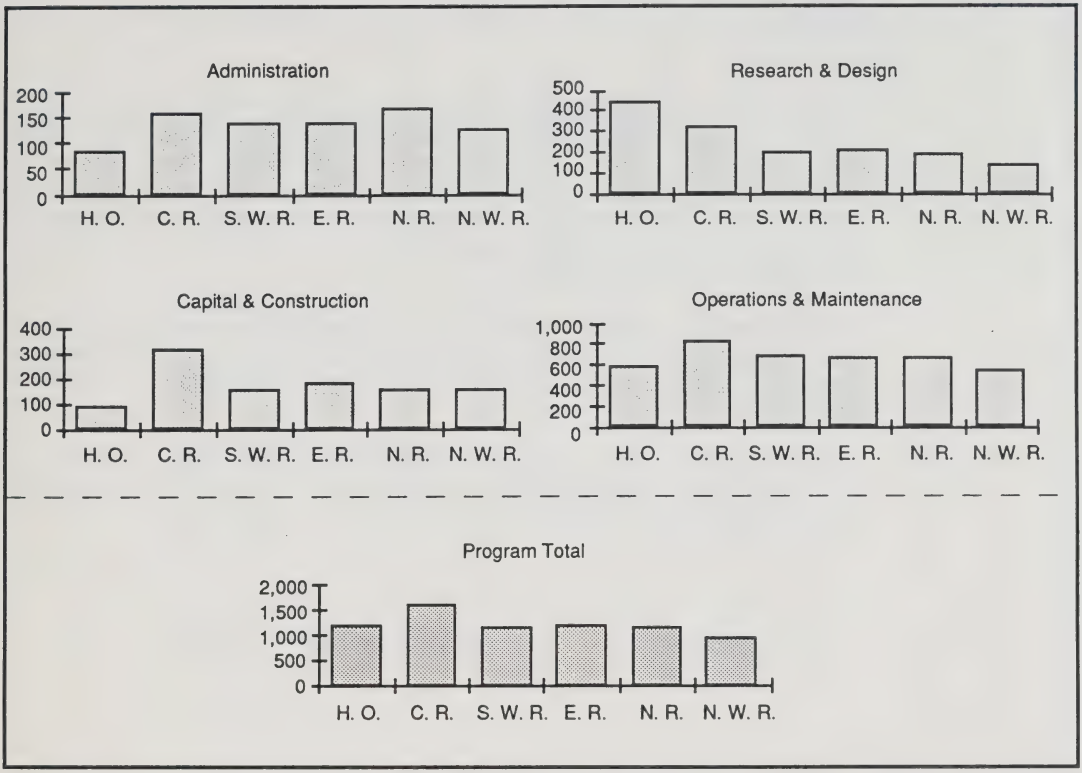
Highlights

- The Head Office/Regional distribution of staff in 1990-91, when expressed as a percentage of the total for the Provincial Highways Program, was as follows:

HEAD OFFICE	16.4%
CENTRAL	22.2%
SOUTHWESTERN	16.0%
EASTERN	16.3%
NORTHERN	15.9%
NORTHWESTERN	13.2%

HUMAN RESOURCES

• Program Staffing: H.O. / Regional Distribution for 1990-91



NOTE: Figures are approved estimates for Annual Budget submissions. Figures are for all types of Staff, i.e. Classified, Unclassified, Seasonal, Temporary, Permanent Part-time, Students, Etc.

: FIGURES ARE IN PERSON YEARS

Staffing: 1990-91	H. O.	Central	Southwestern	Eastern	Northern	Northwestern
Administration	85	159	137	139	166	127
Research & Design	445	320	200	211	186	142
Capital & Construction	89	314	154	181	152	159
Operations & Mtce	590	836	688	667	662	539
PROGRAM TOTAL	1,209	1,629	1,179	1,198	1,166	967

SOURCE: Financial Planning & Administration Br. - Budgetary Planning & Control

• Staff Training

Highlights

- Reliable figures for Staff Training are particularly difficult to get. Last year, the "approved estimates" for Annual Budget submissions were used. However, this year, these figures were not available from the same source as training figures had been lumped together with other costs and could not be disaggregated. Consequently, this year, the Bugetary Planning and Control Office supplied the "Actual" figures from their database as of March 7, 1991.

  An Automated Training Registration Process is currently being implemented by the Human Resources' Staff Development and Training Section, and figures should be available on a regular basis through this channel beginning next year.

  In the meantime, it is really not possible to compare figures from one year to the next. We apologize for this deficiency and are making every effort to improve the situation.

HUMAN RESOURCES

• Staff Training

Dollar Value of Staff Training

1990-91

Administration	$430,678
Design	$201,701
Capital & Construction	$160,342
Operations & Maintenance	$203,689
PROGRAM TOTAL	**$996,410**

PLEASE NOTE: **Source for these figures is different from last year.**
Figures used here are "Actual" figures for Program Activities as of March 7/91.
Source: Budgetary Planning and Control Office Database

SOURCE: Budgetary Planning & Control - Operations Management System Group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